AMERICAN BEE JOURNAL.

EDITED AND PUBLISHED BY SAMUEL WAGNER, WASHINGTON, D. C.

AT TWO DOLLARS PER ANNUM, PAYABLE IN ADVANCE.

VOL. VI. DECEMBER, 1870. No. 6.

[Translated for the American Bee Journal, from the "Honigbiene."]

The East Indian Bees.

The missionary, Rev. Mr. Stellar, now on a visit here after a residence of fifteen years in the East Indies, has given me an account of the bees found in the Punjab, as well as of the climate and flora of that province, so interesting, that I conceive it should be more generally known.

The province of Punjab is situated between the Indus and its eastern affluents. The northerly portion, extending to the base of the Himalayas, is a hilly country, but the southern section is level. The mountain valleys approaching the icy ridge of the Himalayas, have an alpine climate, with very hot summers, and the lower parts often suffer from excessive heat in that season. In the still existing immense forests, various kinds of valuable timber; and among the flowering plants and shrubs are the rhododendrums, &c. Palm trees are found growing almost everywhere, where the soil is sufficiently moist. In the more hilly section and the neighborhood of villages, buckwheat is extensively cultivated, while on the plains, mustard and other oleaginous plants constitute the principal crops. The rainy season extends from the end of June to the end of September.

In such circumstances, we may readily suppose that insects of various kinds greatly abound. Among these there are three varieties of the honey bee, which claim our notice:

1. In the plains we frequently meet with a small wild bee, by the Hindoos called *Tschoti schahad ki Makki* (small honey fly). It is little larger than the common house fly, and darker than the European honey bee. It builds its nest on trees, and occasionally against the walls of buildings; yea, I have even found its brownish combs in the flue of a chimney; and at one time I discovered a nest attached to the window of my dwelling. It is said to have a sting, but seldom uses it, and is on the whole a very harmless creature. Its very small cells never contain much honey; but this may perhaps be accounted for by the fact that in its climate, it is able to gather honey all the year, and finds no occasion for storing any. Its honey is not so transparent as that of the European honey bee, and is thinner or more watery; while its color differs according to season. To appropriate this honey, and especially the highly prized wax, the bees are expelled from their nests by means of smoke.

2. Of great importance for the mountainous district, in which it is almost exclusively found, is the second variety of bee, which we shall now notice, and which the Hindoos call the honey fly (*Schahad ki Makki*). This bee I have occasionally kept myself, for the sake of its fine clear honey. As regards size and color, there is scarcely any difference between it and the European honey bee, nor do I remember to have observed that it has a colored corselet. The inhabitants keep it in box hives, and send the honey and wax far into the interior of the country to market. Regard is had to the prospective cultivation of bees, already when they build their simple cottages, by arranging a portion thereof for the reception of hives, because out-door stands are not safe from attacks of the black bears which abound there, and being fond of honey, destroy the hives in their eagerness to obtain it. The entrance of the hives is usually placed fronting the street, court or garden; and access can always be had to them from the interior of the dwellings. The hives are furnished with cross-sticks inside, to support the combs. As soon as a swarm is hived, the hive is closed, and all joints and crevices are plastered with a mixture of cow-dung and clay. The earliest swarms make their appearance in the beginning of April, and the mother stocks commonly produce several swarms in a season. When the hives are filled, or when honey is needed, a portion of the contents is removed, but usually the harvesting is deferred to the beginning of November. There is usually an abundant product, and to obtain it the bees are driven out with smoke. A sufficient supply to carry the bees through the winter is intended to be left in the hive, unless the owner dooms the entire population to the brimstone pit; but it only too frequently happens that the quantity left is insufficient for their support during the cold season, when they are unable to fly out. It is a wonder, indeed, that with such bad management any colonies survive. When hiving swarms or removing honey, many stings are of course inflicted; and when stung the Hindoos annoint the spot with honey. I resorted to the same remedy myself on one occasion when hiving a swarm, and the whole clus-

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ter dropping on my head, I was grievously stung.

Though this bee is found in every village, and the honey product, as has already been stated, is quite large, we seldom find more than eight or ten colonies in an apiary. Ants, which might prove very injurious to the colonies, as in other southern districts, do not occur here.

In November and December dealers arrive from the distant interior, and purchase the honey and wax. The price obtained is usually 20 Sgr per Ter of 10 lbs. [equal to nine cents per pound.] I never could perceive any difference in the taste of this and the honey produced in Germany.

This industrious bee is nowhere found in a wild state, though it often happens that swarms make their escape to the forests. It must therefore be regarded as decidedly a domestic bee. Though these bees can fly out nearly the whole year, days sometimes occur in Kotegush, a village nearly Simla, in the hilly district, when the thermometer shows 32° F., and the mountains are covered with snow. Bees are then constrained to keep within their hives for several days in succession.

3. I now proceed to notice the third kind or variety of bee, called by the Hindoos "*Bar*"—a term not easily translatable. This bee is somewhat longer and thicker than a queen wasp, and darker than the domestic bee just mentioned. The sound produced by its wings when flying is loud and distinct, in proportion to the size of the insect, though not so loud as that of a hornet. This bee occurs only in a wild state in the forests and mountains, where their two feet long reddish combs may frequently be seen suspended from the limbs of trees, at a height of ten or twelve feet from the ground, and are commonly about eighteen inches in circumference. Yet I have sometimes seen them build against the gables of cottages in the villages. Their sting is very painful, as I have experienced on my own person when passing unawares beneath a tree containing one of their nests. The Hindoos assured me that this bee stores a large quantity of honey, which is probable from the fact that it is frequently found in localities where snow falls in the winter months, and as the occasional demolition of nests built against cottage walls has shown. Still it is nowhere cultivated, either for honey or wax. Their ill temper, however, cannot be the sole reason for this exemption, since they may readily be subdued by smoke and driven from their combs. Yet the inhabitants dread them much, and do not venture to approach their nests—a timorousness which must perhaps be regarded as the result of some ancient superstition.

Whether this bee could be domesticated like the one previously described, I am unable to say, but an effort to bring it under subjection might prove interesting and be worth making. Railroads now pass near the places where it is found, and could furnish the means of transporting hived colonies to Bombay, whence they could easily be shipped to some European port. I have no doubt that the missionary Rebsch, at Kotegush, near Simla, would obligingly aid in accomplishing the object.

This is the substance of the Rev. Mr. Stellar's communication.

H. BORNITZ.

[From the Western Rural.]

Michigan Bee-keepers' Convention.

Mr. Rood thought that the question of the good or evil of upward ventilation cannot be decided by the experience of one or two swarms put into hives of a certain construction. We cannot reason from analogy in all cases. We must try experiments, and learn from experience. He had tried double hives, constructed with boards three inches thick, lined with chaff. He had no doubt but a hive could be constructed which would do away with the necessity of upward ventilation.

Mr. Putnam thought that upward ventilation was very necessary until bees stop breeding and perspiring. Up to that time he thought it could not be dispensed with. The question is, how is it to be applied? There is a practice among bee-keepers of giving ventilation in another way. It consists in raising the hive on blocks over the bottom board. He found bees in hives raised in this way were healthy, and there were few to be seen on the outside of the hive. He thought that the reason why bees cluster on the outside of a hive, is that they have instinct to know that their presence inside would be injurious; in fact, that the hive would be so hot that the combs would melt.

Mr. Rood said that when he sees bees drumming for the purpose of creating a current of air, he contrives to help them by opening the ventilator, and allowing the heated air to escape.

Mr. Putnam said that in the natural state of bees in the forest, the honey is always stored above the entrance, in an air-tight apartment. A question of importance relating to ventilation is, does the foul air escape at the top or at the bottom of the hive? He thinks it falls and escapes at the bottom.

Mr. Moon thought it was just as necessary to have upward ventilation in a hive as in a room. He had bees at one time in common hives, and in winter, kept the hives in a room in a reversed position. He found that all vapor escaped from the hives, and during frost condensed on the windows, and the glass appeared to be a solid mass of ice. Bees are naturally hot, and unless there is upward ventilation, the vapor arising from them will condense, so that during frost they will be encased in a solid mass of ice.

Mr. Portman said that he frequently, in the forest, found swarms, in trees, with three or four entrances to their natural hive; and in every place where the combs were high above the entrance, they were as dry and perfect as possible; but in every place where they were on a level with or below the entrances, they were more or less damaged.

The next question taken up for discussion, was, "*What is the best method of guarding against the moth?*"

Mr. Rood would give his opinion in a few words—keep the swarms as strong as possible.

Mr. Portman thought that few bee-keepers know how to keep swarms strong, yet the method was as simple as possible; take the queen from the swarm, and put the bees back into the hive. All injurious insects are more or less troubled with parasites. In examining one of his hives he found that it was infested by moths, and that the moths were literally covered with small worms which seemed to feed on them.

Mr. Rood said there were several ways of keeping swarms strong. For his part he thought that the moth was really an advantage. Suppose there are two weak swarms, not sufficiently strong to stand the winter; now that is the very condition which is favorable to the moth. It is searching for a hive in which the bees are not numerous enough to cover the combs. Now if we put the two swarms together, we defeat the moth, and at the same time make the swarm so strong that it will keep warm and healthy during the winter.

Mr. Portman thought that hives in which there are large quantities of drone-comb are more liable to the attacks of the moth, than those which contain much worker-comb. He experienced this frequently. When he finds drone-comb much affected by the moth, he cuts it out and throws it away.

Mr. Biel said that if the entrance to a hive is so regulated that the bees can guard it, the moth will be kept out. A queen left one of his hives in the swarming season, with about forty bees, and, for the sake of experiment, he put the little swarm into a hive and closed the entrance in such a manner that the bees could protect it from the moth. The bees worked well, and made honey enough to support themselves during the winter.

ARTIFICIAL SWARMING.

Mr. Portman thought that an experienced bee-keeper may succeed in increasing his bees by artificial swarming even in as unfavorable a season as last year was. This year the dividing of stocks might be safely carried on even up to the 1st of August. The season was a very favorable one. He intends to experiment extensively in artificial swarming next year; in fact, he will venture to sacrifice seven or eight colonies in investigating and studying out that question. A bee-keeper will find something new to learn every year.

Mr. Rood said that it takes some little time to learn all the facts about bees. There are facts that cannot be communicated, cannot be explained in books, and must be learned by experience. A man has to be in the apiary, and watch the bees, in order to gain a thorough knowledge of their habits.

Mr. Moon said that, as a general thing, where there is a scarcity of honey he would allow the bees to swarm. He found that when honey is scarce, bees seldom swarm. He had as many as thirty swarms this year, and has not lost one. All settled in places where they could be hived.

Mr. Portman said that sometimes people look out in the fields and see an immense quantity of white clover, and infer from this that the season will be a first-class one for honey. Now this is not always the case. Sometimes bees do not work in white clover, because there is no honey in it. There are seasons when there is no honey at all in white clover.

Mr. Rood said that bees seldom gather honey from white clover after the 15th and 20th of July. After that date, although there may be plenty of white clover, there is no honey in it.

[From the Prairie Farmer.]

North-Western Bee-Keepers' Association.

OFFICIAL REPORT.

The fourth annual meeting of this Association was held on Wednesday evening, Sept. 28, at the Courthouse at Decatur, Illinois. The attendance, considering the state of the weather and other local causes, was very good. It was arranged to have only one session this year; but this, as events proved, was an oversight, for a series of meetings might have been held with profit. Hereafter matters will be so arranged, we trust, that several meetings may be held, and that a greater number of topics may be brought before the society for discussion. When there is but one session, and that a brief one, the time is mainly taken up by reading the minutes of the previous meeting, recording the names and address of new members, electing officers, appointing committees, and transacting other legitimate business.

REMARKS BY THE PRESIDENT.

The President, M. L. Dunlap, called the meeting to order at 7 o'clock, and briefly reviewed the bee interests of the past season. In some repects he regarded the season as a peculiar one. In some sections of our country there has been a remarkable yield of surplus honey secured, while in other sections bees have barely stored enough for their winter use. His own locality has been visited by a severe drouth, on which account his honey crop has been nearly destroyed. More attention should be given to the cultivation of honey-producing plants, and especially those that can be relied upon in seasons of drought. Before we adjourned he hoped the subject of bee pasturage would be taken up and discussed.

From what I see, hear, and read, it is evident that we are making rapid strides in this branch of rural economy. Men of intelligence and moral worth are at the helm. Quacks and charlatans, with long-toed boots and clownish attire, with mouth and hair full of bees, and vending that miserable stuff called "bee charm," no longer disgrace themselves and our fairs, and misrepresent our calling. On the contrary the apicultural exhibitions at our fairs are now conducted by intelligent practical bee-keepers, and in a quiet and orderly manner. This certainly denotes progress and will command respect.

READING THE MINUTES.

The Secretary, Mr. Baldridge, read a synopsis of the last meeting's proceedings. The Treasurer's report was also read, in which it was shown that the society was out of debt, with a small balance in the treasury. The reports being accepted, eleven new members joined the society. There are now fifty-seven members belonging to the association, who have paid their fee of admission. The report of the Secretary shows that there were twenty members at the annual meeting in 1869, who represented 1,001 hives of bees, and 24,709 lbs. of surplus honey.

ELECTION OF OFFICERS.

The following officers were chosen for the ensuing year:

President, L. C. Francis, Springfield, Illinois.

Vice-President for Illinois, J. B. R. Sherrick, Decatur.

Vice-President for Wisconsin, R. C. Otis, Kenosha.

Vice-President for Iowa, W. T. Kirk, Muscatine.

Vice-President for Missouri, L. C. Waite, St. Louis.

Secretary, M. M. Baldridge, St. Charles, Ills.

Treasurer, James M. Marvin, St. Charles, Ills.

FIFTH ANNUAL MEETING.

Vice-President Sherrick made a motion that the next annual meeting be held in Wisconsin, which was sustained. The Secretary therefore gives notice that this meeting will be held, as fixed by the constitution, on or near the fair grounds at the time of the State Fair, and that every member of the Wisconsin Bee-keepers' Society is particularly requested to be present.

COMMITTEES.

J. L. Peabody, G. Ayres, and J. B. R. Sherrick were made a committee to examine the bee hives on exhibition at the fair grounds, and to report on their respective merits.

A committee was also appointed not only to *examine*, but to *test*, the merits of the honey machines on exhibition, and to report upon the same. This committee was composed of President Francis, Miles H. Wilmot, and William G. Reynolds.

It was made a condition that these examinations and reports should simply be an expression of the committees, and *not of the Convention*, and that the reports should be written out and placed in charge of the Secretary before the close of the fair, so as to be published with the proceedings of the Society.

And right here the Secretary desires to say, this being as good a place as any to dispose of this matter, that the report on hives was not received during the fair, nor has it been since; and that the publication of the proceedings has been somewhat delayed in hopes of receiving the same by mail, so that there could be no just cause for complaint. The report on the machines was promptly attended to, and reads as follows:

We find two machines on exhibition, one by Wm. G. King, and another by J. L. Peabody. After testing the machines with the best facilities in our possession, we find them both to be good extractors: but for simplicity of construction, convenience of operating, compactness and durability, we should give the Peabody machine the preference.

L. C. FRANCIS,
MILES H. WILMOT,
WILLIAM G. REYNOLDS,
Committee.

We will now return to the proceedings of the Society.

NATIONAL BEE-KEEPERS' CONVENTION.

The subject of holding a National Convention came up for consideration, and a vote taken upon it, which resulted unanimously in favor of a two days' meeting at Indianapolis, on the 21st and 22d of December next. The society expressed regret that any unkind feelings should exist on this subject between the Michigan and North-eastern Associations. As the Michigan Society has issued the call, and as the time and place has been extensively advertised, it does seem that it would be best to meet at Indianapolis this year, and then the Convention may decide by ballot on the time and place for holding the next annual meeting.

Evidently it was the design that the following telegram should reach the officers of Northwestern Society before the hour of the annual meeting. Such, however, was not the case. By the inexcusable negligence of the telegraph agent at Decatur, it was not received by the Society till Friday, Sept. 30th, which was too late to take any other action upon it further than to reply.

ATTICA, N. Y., Sept. 28, 1870.

To the North-wes'ern Bee-keepers' Association.—The North-eastern Bee-keepers' Association held a meeting to-day. On motion of R. Bickford, seconded by I. Root, it was voted that this Society desires the National Convention to be held at Cincinnati. This point is centrally located, is free from local influences, and is near the home of Rev. Mr. Langstroth, whom we want present. Please telegraph the desire of your convention.

M. QUINBY, *President.*

The following reply was sent by telegraph, as soon as the above was received, but to St. Johnsville, N. Y., that being the home of President Quinby:

ILLINOIS STATE FAIR GROUNDS, *Sept.* 30, 1870.

Your telegram was not received till to-day. The North-western Association has decided to recognize the call by the Michigan Society for a National Convention at Indianapolis.

L. C. FRANCIS, *President.*
M. M. BALDRIDGE, *Secretary.*

DISCUSSION ON BEE PASTURAGE.

Miles H. Wilmot, Illiopolis.—The best tree for honey purposes, in my section, is the basswood. This tree is in bloom about two weeks, and yields honey at a time when other blossoms are gone. More attention should be given to this tree for shade and ornamental purposes. It is a hardy,

rapid grower, and can be made profitable as a honey tree.

Borage has been highly recommended as a honey plant; but it is a question whether it will pay to raise a crop especially for bees. One of my neighbors has an acre of this plant; the bees work on it from morning till night; it remains in bloom a long time; and bees seem to secure considerable honey. But an acre of any plant is of little value when within the range of the flight of several large apiaries. That is to say, the increase of honey distributed among so many colonies, would scarcely be noticed.

Heartsease gave me considerable honey last year, but not so much this year. In general it is one of my best plants for honey.

M. L. Dunlap, Champaign.—Until this year, I supposed we could supply our bees with abundant pasturage. There are several desirable honey plants, but we need pasturage that is of value for other than honey purposes. No matter what the season may be, it will pay to raise crops for *soiling*. For this purpose fall rye is excellent, and can be cut early in the spring. The land can then be plowed and sowed to buckwheat. In most of seasons this crop of buckwheat will produce considerable honey. When the plant is in full bloom, it may be plowed under as a fertilizer, and the land resowed for a grain crop. There is always a good demand for buckwheat flour, and the crop is generally a paying one for grain purposes alone. This year I sowed three acres to buckwheat as just stated. My apiary of seventy-five colonies have gathered enough honey from this plant to winter them.

This year my bees have worked considerably on apple juice. I have never known them to do so before, and therefore attribute this innovation to the scarcity of honey. As soon as my second crop of buckwheat came into bloom, my bees quit cider-making. I have been asked the question whether bees stored cider or honey from the apple juice. This question I will answer by saying that I do not believe the honey bee is at present sufficiently skilled in chemistry to change apple juice, or molasses even, into honey.

Last spring I sowed seven acres to Alsike clover. The ground was nicely prepared, but the extreme drought and the lateness of the season, destroyed it. I think this clover should be sowed alone, and as early in the spring as possible.

A Stranger.—My experience with buckwheat is not a favorable one. A year ago I sowed a few acres to this crop, but I was unable to find my bees at work upon it. Has any one else a similar experience?

Secretary.—In the vicinity of St. Charles, buckwheat seldom yields much honey. There are in the village about 250 hives of bees. They do not average, one year with another, more than three to five pounds of honey from the buckwheat. The land is quite high and rolling. Twelve miles west of the village, the Messrs. Marvin have an apiary of fifty colonies. In this location we have never known the buckwheat to fail in the secretion of honey. From forty to fifty pounds of buckwheat honey is the yearly average for each colony in this apiary. The land is level and quite low.

On some soils white clover secretes but little honey, and the same may be true in regard to buckwheat. Careful observations in different parts of the country may soon settle this point.

John Husted, Beardstown.—Buckwheat is a good honey plant with me. This season I have taken from two hives 128 lbs. of buckwheat honey, as surplus.

A. T. Bishop, Leroy.—Up to the 5th of September my bees did not gather much buckwheat honey. But at that date the blossoms began to secrete honey, and since then they have done well. This indicates that the secretion of honey in buckwheat, as well as in other blossoms, is more or less subject to atmospheric influence.

A. Stranger.—One acre of Spanish needles* will give more honey than five of buckwheat. The honey has a finer flavor and a rich color, and commands a good price in the market. Not so with buckwheat; the honey is too dark, and the flavor is not generally well liked.

Mr. Wilmot.—I have noticed that bees do not work much on buckwheat sowed in the early part of the season.

President Francis.—As a honey plant there are two objections to buckwheat. 1st. It is unreliable—hot weather and early frosts ruin it completely. 2d. It depreciates the value of white clover honey when mixed with it. Every year I have more or less boxes of white clover honey nearly full, finished up with buckwheat. The appearance of the white clover honey is spoiled, so much so that it sells for no more than buckwheat honey. Dark honey will not sell in market within 5 or 10 cents per pound as much as light-colored honey. Instead of raising buckwheat for honey, it is the better way to keep none but Italian bees. These bees will gather honey from plants not visited by the common variety, and will work with greater industry. For these reasons they will gather more honey without than the natives will with buckwheat.

Alsike clover is an excellent honey plant, but it yields honey only when we have plenty of white clover and other blossoms. On this account it is not so valuable as it would be if it bloomed later in the season. Perhaps feeding it awhile in the spring would delay its blossoming, and obviate this objection.

Secretary.—Our main dependence for honey, last year, was the Alsike. This year the drought has been so severe that it made but a small growth, and consequently yielded but little honey. The prospect however is good for a crop of Alsike next year. It seems to stand the drouth well, notwithstanding the growth is small. Comparatively it has suffered but little more from the drouth than timothy, which with us, this year, is not more than one-fourth of an average crop. All of my Alsike was sowed with winter and spring grains. It does well when put in with barley just before the last harrowing. Sometimes this clover will grow to the height of 15 to

* Spanish needles grow abundantly here (in Washington) on waste places and roadsides; but we never saw a bee on the blossom, though we examined them frequently, year after year, when in bloom.—Ed. Am. Bee Journal.

20 inches the first season and can be cut for a hay or seed crop. Such was the case last year, in some parts of Michigan. It is now no longer a question with those who have fairly tried the Alsike that it is a valuable plant for honey, in seasons and on soils suited to its growth.

A Stranger.—Would it not be well to plant groves of the locust, for honey? This tree blossoms very full, and yields a large amount of most excellent honey. It is also valuable, when large enough for posts and ties, and seems at present to be free from the attacks of the borer.

Mr. Wilmot.—I have observed bees working considerable on the male plant of the hemp, and have thought that it might be a profitable crop to raise for honey and other purposes. Has any one any experience with this plant?

Wm. G. King, Champaign.—My former home was Kentucky. Large fields of hemp were grown in my neighborhood. My observation is that bees do not gather honey from this plant, but pollen only. This being the case it will not pay to raise this crop for the use of the bees, as they can always get as much pollen as they need.

Mr. Dunlap.—It is well known to botanists that staminate plants do not yield honey.

FERTILE WORKERS.

Mr. KING.—As fertile workers are a source of much trouble to bee-keepers, I wish to say a few words in regard to them before we adjourn. These may be found and destroyed very readily by making several temporary divisions of the colony. By watching these divisions closely for a short time, those having no fertile worker will show it *by their actions*, the same as though made queenless. The division that remains quiet should now be examined, and, as it contains a mere handful of bees, you will soon find the mischief maker. When destroyed unite the bees and give them a fertile queen, and she will be kindly treated. If any one has a better way of disposing of these would-be queens, I should like to know what it is.

Secretary.—There are two objections to the plan given by Mr. King. One is, the waste of unnecessary time in making the divisions and searching for the fertile worker. The other is the liability of still leaving one or more fertile workers among the bees! In practice we find it much the better way to let the bees themselves destroy the fertile workers, which they will do as soon as they have a supply of *young bees*. To supply these, simply take one or more combs of larvæ and maturing worker brood from other colonies in the apiary and insert them. By this means the queenless colony is kept in full strength, and the young bees will not only destroy all the fertile workers, but now proceed to raise a queen from the proper material, or accept of an offered queen or a queen cell.

Prevention, however, is much better than a cure. Do not allow any colony to remain queenless so long that they are compelled to resort to such abnormal measures for their preservation and perpetuation.

The objects for which the society met having now been accomplished, a motion to adjourn was in order.

M. M. BALDRIDGE, *Sec. T.*

* This method of subdivision may be advantageously resorted to when it becomes necessary to search for the queen of a very populous colony of black bees. It is then a less troublesome and far more agreeable means of finding her majesty than overhauling a series of combs crowded with ill tempered and irritated bees, while an eager horde of robbers is on the wing, ready for a general raid on the hive and its contents.—ED. A. B. J.

Report of the Semi-annual Meeting of the North-Eastern Bee-Keepers' Association.

HELD DURING THE N. Y. STATE FAIR AT UTICA, SEPT. 27 AND 28, 1870.

M. Quinby, (presiding) called the meeting to order. Minutes of the last meeting read and approved. After distributing papers containing the Constitution and By-Laws, an opportunity was offered to bee-keepers present to join the association, and a goodly number enrolled their names.

Mr. Robert Bickford, of Seneca Falls, being present, was invited to address the meeting, as he was familar with the history of similar associations in Germany.

He said he stopped off not to attend the fair, but to be present at the semi-annual meeting of this association; was pleased to see the interest manifested, but we were far behind the German associations; at one of their late meetings three hundred and ninety bee-keepers were present, including eighteen or twenty ladies, and the citizens took a deep interest in the cause, providing for members at their own homes. They do not make a side show of their meetings by holding them in connection with fairs, but have a grand rally that stirs the whole community like some of our great political meetings, and they have a grand display of fireworks in the evening. With the name and address of each member is recorded the number of stock of bees he keeps; the number in movable-comb and box hives; the number of pounds of honey secured and the price obtained in the market.

Mr. Bickford suggested that we make a similar record and publish the same in the papers with the report of the Convention.

Mr. King moved that we adopt Mr. Bickford's suggestion. Mr. Quinby suggested that the phrase movable-comb hives would be sufficient without mentioning the name of the hive inventor or patentee, and the motion thus amended passed unanimously.

The following questions for discussion were read:

1st. Is it profitable to prevent natural swarms in all cases?

2d. To what extent is artificial swarming profitable?

3d. At what time of the season is it best to make artificial swarms?

4th. Will it prove an advantage, all things considered, to use the honey emptying machine extensively?

5th. What would be the advantage of artificial combs of material indestructible by worms?

By request of Mr. Bickford—who expected to be present but one day—the last question was taken up first, and Mr. Quinby called upon to introduce the subject. He exhibited a frame of artificial comb of his own invention, made of tin and sheet iron. It was coated with wax and filled with honey by the bees, some of the cells were sealed over. The queen would deposit eggs in the cells, and in one piece as many as four litters of brood had been hatched, but the queen preferred the tin.

Mr. Bickford asked Mr. Quinby the following questions:

1st. Had he used that kind of comb in a hive exclusively?

2d. What will it cost per hive?

3d. Had he made whole frames of sheet iron alone?

4th. Are you willing to use it in your own apiary?

5th. What will be the effect of metallic combs upon the bees in winter?

6th. Can you test it the following winter?

7th. How do you propose to supply bee-keepers, with machines or combs?

8th. Would it pay to sell combs?

Mr. Quinby replied to the questions as follows: 1st. He had not. 2d. About $2 per hive. 3d. Had not. 4th. Was testing it. 5th. Could not tell, as he had tried it only this season. 6th. Had only four sheets of this comb filled with honey, but Mr. Von Douzen has six sheets. 7th. Have not determined what to do; had applied for a patent which had been rejected on account of Mr. Wagner's patent on the base of cells. 8th. Did not know, but thought they would sell, as they would be a great advantage with the honey extractor, and metallic combs could not be destroyed by the moth and we would not be troubled with drone comb.

Mr. Bickford said that he had a plan for a machine to make comb out of wax or other substance, had made some comb, but a machine would cost about $200, and he did not think enough would be sold to pay for the investment. He had all the bees he could attend to, and they were supplied with tolerably straight combs. A few years ago he would have taken more interest in the artificial combs than he now does.

Mr. King said that he was willing to invest $200 to make a machine to furnish artificial comb for sale, but agreed with Mr. Bickford that it would not be remunerative. Mr. Bickford had kindly explained his invention and offered it without price for the good of the cause, but he is in communication with other parties who, he thinks, will soon produce artificial comb of a substance having none of the objections of metallic combs, and yet indestructible by the moth, but considered the latter of less importance, as strong stocks of Italians are in no danger of injury by the moth, and practical, enterprising bee-keepers should keep no other. Experimenting is very expensive, and he would prefer to have some one else furnish machines and make artificial combs, but he could sell a large amount.

Mr. Allen, Mr. Hetherington and others spoke on the subject, when Mr. Root called the association to order; said we were violating our rules by exhibiting inventions. Mr. King said Mr. Quinby was excusable on account of his age. Mr. Hetherington asked Mr. Bickford if he had actually made a piece of perfect comb out of wax. Mr. Bickford replied that he had on a small scale, but calculated the machine would make a square foot per minute, and he could prove that a frame of comb was worth $1.50 to beginners.

Mr. Quinby said he had heard of some instances where swarms without combs gathered more honey than those supplied with empty combs.

Mr. Baldwin, Sen., said last spring they had plenty of empty combs, and hived a large number of swarms in hives with combs and about an equal number in hives without combs. The swarms put in hives without combs, have stored nearly, double the amount of box honey stored by those supplied with empty combs and are much stronger, though there is not as much honey in the body of the hive. He thinks the unusually abundant yield of honey enabled the bees to fill the empty combs before the queen could occupy the proper space with brood to keep the stock strong in number.

Mr. Adset said he had some experience in putting swarms into hives filled with empty combs, and obtained six to eight, and even ten boxes of surplus honey from such stocks, but he had never obtained more than four boxes from swarms put into empty boxes.

Mr. W. A. House thought the colonies had been too much confined. If there had been more boxes the bees would have filled them and allowed more room for the queen to rear brood. Mr. Haskins thought that empty boxes would obviate the difficulty.

AFTERNOON SESSION.

By motion of Mr. Root the other questions were considered together, as each one depended on the others. He favored non-swarming and the use of the honey extractor. Said they had a great many empty combs last spring, and used large hives. In one week's time they took eighty-three pounds of honey with the extractor from one hive, and did nothing to stimulate breeding except the exchange of empty combs for full ones removed. From one hive they took 371 pounds, the stock now has 75 pounds and has made no attempt to swarm. From another hive with boxes they obtained 155 pounds of box honey under similar circumstances.

Mr. Allen had sold drained honey for a higher price than he could get for box honey. Mr. Bickford had sold 350 pounds of box honey for 50 cts. a pound in New York, and thought extracted honey worth 50 cents a pound, and we can get it if we only ask it. If you ask less than for box honey, purchasers will think it is worth less.

Mr. Hetherington said that while in New York, lately, he heard it said that a better price could be obtained for honey if only two or three dealers sold it, for when it goes into the hands

of commission merchants who make butter, eggs, &c, a specialty, they will sell honey at a low price at wholesale to get it off their hands and get their five per cent., as they do not receive enough honey to pay them for spending time to get the highest price.

Mr. Bickford said honey gathered early was not of so fine a flavor. Honey from dandelion mixed with white clover honey injures its sale, and ugly worms have disgusted him with box honey.

Mr. King said that a part of the poorly flavored honey gathered early would remain in the combs, and when emptied by the extractor with white clover honey would injure its flavor, but the difficulty can be remedied by inserting empty combs or putting on boxes after the white clover honey harvest has commenced. He believed extracted honey would never command the highest price in the city markets. In setting a table, health reformers have three rules. 1st. The food must be healthful. 2d. Palatable, and 3d. It should, when on the table, present a pleasing appearance. But the class of city people who purchase most of the honey, have these rules reversed; and what looks more pleasing to the eye and sweeter to the taste than "honey in the honey comb." He proposes to get up beautiful labels with blank for the bee-keepers' address, and keep them for sale; some guarantee of purity is important, as extracted honey is destined to soon have a large sale, by the barrel as well as in jars, for other purposes than the table.

Mr. Bickford said honey in glass jars looks more beautiful than honey in the comb with the cells half filled, and the higher the price the better it sells.

Mr. Jones.—Will it keep as well as box honey? Some object to it, stating that it soon candies, looks like lard and will not sell. Mr. Bickford.—It keeps better than box honey, and the objection of looking like lard vanishes when the purchasers are informed that by setting it in water and heating it gently it again takes the liquid form and is as clear and fresh as ever.

Mr. King said the committee appointed to correspond with the presidents and secretaries of sister associations and leading bee-keepers throughout the land, in reference to holding an American Bee-Keepers' Convention, had discharged the duty, and he gave the history of the correspondence at length, which has since been published in the BEE-KEEPERS' JOURNAL. Messrs. Bickford, Hetherington, Root, and others, spoke, approving the course the secretary had taken.

Mr. King said the North-Western Bee-Keepers' Association was in session at Decatur, Ill., and that he feared they would unconsciously be led astray by Mr. Wagner's statement, as Mr. Wagner had been by the partial quotation of the resolution of this convention, made by Messrs. Moon and Mitchell.

Mr. Bickford said if he represented any one at this association, he was here as a friend of Mr. Wagner and Mr. Langstroth.

On motion of Mr. Bickford the following was sent by telegraph:

UTICA, N. Y., Sept. 28, 1870.

To the North Western Decatur, Ill., Bee-Keepers' Association:

The North-Eastern Bee-Keepers' Association desires National Convention held at Cincinnati, Ohio, because generally located, free from local influences, and near the home of Mr. Langstroth, whom we want present. Telegraph desire of your convention.

Signed, M. QUINBY, *President.*

(The dispatch was sent the 28th. Some days after Mr. Quinby received dispatch that our telegram was received too late; they had recognized the call of the Michigan Association and adjourned.)

SECOND DAY—THIRD SESSION.

Mr. King said the clause in our constitution requiring the payment of one dollar annually, was a great hindrance to the prosperity of the association. Many bee-keepers present had not joined.

Mr. Hetherington said we contemplated offering premiums on honey, and we should need money. Liberal premiums should be offered, as it costs considerable to exhibit honey.

Mr. Bickford said that he hoped we would rescind the whole clause and have no initiation fee. In the great gatherings in Germany, membership was free. If money was needed, members would put their hands in their pockets and give liberally.

Mr. Quinby said we should have opportunity enough to put our hands in our pockets, even if we let the initiation fee remain as it is.

Mr. King said he could heartily endorse Mr. Bickford's position. Do away with both the annual and initiation fees, and get bee-keepers to attend and join the association, and when they become interested they will give liberally to defray any necessary expenses. Let us be liberal and have a large gathering and an interesting and profitable meeting.

Messrs. Van Douzen and Hetherington spoke against any change, when Mr. Root said a clause in the constitution provided for amendments only at the annual meeting, hence the discussion was useless and out of order.

On the question of swarming, Mr. Quinby said if we could prevent the issue of swarms until after we had secured the surplus honey with the extractor, (or if in boxes they would be filled more rapidly, and the honey would be whiter,) then make new colonies just in time to secure winter stores, we would obtain more honey, and the stocks would be more valuable in the spring. Late swarms work and breed late, hence the bees are young and the colonies more valuable the next spring. He had got his box honey before swarming, and bees will finish boxes after swarming if partly filled before.

Mr. Allen thought honey ought to remain in the combs some time, before emptying it with the extractor, to acquire a good flavor. The honey is condensed by evaporation while in the hive, but honey emptied with the extractor while thin is liable to sour.

Mr. Root said artificial swarms should be made

when there are enough bees for two good swarms, and not before.

AFTERNOON SESSION.

Mr. Bickford said it was well known that foul brood had been detrimental to bee-keeping, but a simple remedy had lately been discovered, and would soon be published. The ingredients can be purchased for a few cents at any drug store.

Mr. Quinby said foul brood was not one hundredth part as bad now as it was ten years ago.

Mr. Bickford desired to speak in favor of the publications devoted to bee-culture, but specially in favor of the *American Bee Journal*. No one can do much alone without the aid of papers and books.

Mr. Quinby said a single article in the paper would often contain just what a beginner wanted to know and worth many times the price of the paper.

Mr. King said we had been greatly disturbed by the crowd during the sessions of this convention, which, with the irregularity of the attendance of members had prevented him from securing a list of all the names of bee-keepers present, with the number of stocks each kept, amount of honey obtained, and number of movable-comb hives. If elected secretary again at our next annual meeting, he will provide an assistant secretary and make a more creditable report. He believed it was well to hold semi-annual meetings of bee-keepers' associations at State fairs, but when held during the day on the grounds, a secure retreat should be obtained, and only short, lively sessions held. He promised to provide before next fall, large cards with the following, printed in large, bold type :

BEE-KEEPERS ASSOCIATION.

Will meet at.....at.....o'clock.

suitable for any association in any State, and furnish them free, to be tacked up in different places on the fair ground.

Mr. Bickford moved that the report of this convention be forwarded for publication to the various bee journals and agricultural papers, which passed, and the association adjourned to the next annual meeting.

H. A. KING, *Secretary.*

The name *Bee*, as shown by its derivative meaning, was originally imposed with direct reference to the insect's constructive habits, as was the case with the names given to it in the more primitive languages, and which is also the origin of its Teutonic and Scandinavian appellations—*Biene, Bie, Bi*, whence our own common name for it is obtained through the Saxon *Beo ;* and we have besides Bye or bee, signifying *a dwelling*. From this circumstance it would seem that a very early and universal discernment existed of its ingenuity and skill, its significant name being everywhere analogous.—*Schuckard.*

Natural laws are the rigid expression of dominating necessity.

[From the Official Report, in the Advertiser and Union.]

Cautauque County, N. Y., Bee-Keepers' Convention

The first annual meeting of the "Chautauque County Bee-keepers' Association" was held at the Court House in Mayville, Wednesday, Sept. 27, 1870.

In the absence of the president, vice president J. C. Cranston was called to the chair. The following officers were elected for the ensuing year :

President, J. C. Cranston ; Executive Committee, Ira Porter, J. G. Harris, J. M. Beebe, L. R. Whitford and H. A. Pratt ; Secretary, C. E. Benton : Vice-Presidents, M. H. Town, of Arkwright, E. H. Jenner, of Busti, O. E. Thayer, of Carroll, Welcome Carpenter, of Cherry Creek, J. O. Wood, of Chautauque, B. Pettit, of Clymer, Z. Hunn, of Dunkirk, L. Weeks, of Ellery, Mr. Carpenter, of Ellington, L. L. Darby, of Ellicott, Addison Beebe, of French Creek, B. L. Harrison, of Gerry, W. H. Cook, of Harmony, C. E. Randall, of Hanover, J. Scudder, of Kiantone, H. Q. Ames, of Mina, Livanus Ellis, of Pomfret, Maxam Sweet, of Poland, Delos Hall, of Portland, David Shaver, of Ripley, H. B. Woodcock, of Stockton, Joseph Shinner, of Sherman, P. Miller, of Sheridan, T. Searl, of Villenova, E. C. Bliss, of Westfield—

The following reports were submitted by members :

They set forth the advantages of bee-keeping in a manner at once telling and practical, and are well worth reading. The reports are brief—facts and figures—merely showing what has been done, and therefore what can be effected in Chautauque. As Mr. Hubbard said there is probably no farm-stock more remunerative for the same amount of capital expended than bee-culture. Care is of course necessary, as with everything else that is solid or substantial.

J. M. Beebe, of Casadaga, commenced the season with fifteen colonies of bees, one of which was queenless, and one had a drone laying queen, leaving him but thirteen swarms of value. Three of these he used for making nucleus swarms for raising Italian queens, thus leaving but ten from which to receive surplus honey. These ten produced 12 young swarms and 655 lbs. of surplus honey. One Italian colony produced one young swarm and 96 lbs. of box honey, and the young swarm 120 lbs., making from one swarm 216 lbs. of box honey and a good young swarm worth $10—a profit of $74.80—the largest profit he had ever received from one swarm of bees. He has now 25 colonies of Italian bees all in good condition for wintering.

Wm. Cipperly, of Sinclearville, commenced the season with two colonies—one in the Beebe hive and one in the box hive. The one in the Beebe hive gave him five young swarms and 60 lbs. box honey. The one in the box hive gave him three young hives and no box honey. The whole amount of surplus honey is 200 lbs. ; it would have been more, but he preferred the increase of swarms.

Franklin Ellis, of Casadaga, commenced in

the spring with 11 swarms—some in the Langstroth and others in the box hive—and realized 15 young swarms and about 400 lbs. of honey.

Mr. Waterman, of South Stockton, commenced with six swarms; realized 10 young swarms and about 200 lbs. honey. He used the old fashioned box hive, but intends using the improved hive next season.

Nester Lambling, of Charlotte, commenced with six swarms, mostly in the Beebe hive, and has six young swarms and 400 lbs. box honey.

Lewis Simmonds, of Charlotte, commenced with six colonies, and has eleven young swarms and 200 lbs. honey; he uses the Langstroth hive.

John Guest, of Pomfret, commenced with two swarms; got two young swarms and 75 lbs. honey; uses the box hive.

Mortimer Ely, of Stockton, commenced with two swarms from which he has four young swarms and 40 lbs. honey; he used the Kidder hive.

P. G. Tambling, of Pomfret, had in the spring three swarms, and received six young swarms and 50 lbs. honey; he used the box hive. One of the hives has been in use twenty years and now has the same combs that were built in it twenty years ago. The bees are strong and healthy. Who can beat this?

Russell Mattoon commenced with one swarm, and has four young swarms and 75 lbs. honey.

Lyvenus Ellis, of Pomfret, commenced with nine swarms, from which he has received nine young swarms and 700 lbs. box honey. One swarm gave him 108 lbs. surplus honey.

[Perhaps the only report ahead of this was the President's, T. S. Moss, who "hived" 10 lbs. of most delicious honey, with *nary a bee.*]

Wm. Smith, of Stockton, commenced with seven swarms, and realized seven young swarms and 300 lbs. box honey. He has taken from one young swarm in the Beebe hive 99 lbs. surplus honey.

Sewell Spaulding, of Villenova, commenced May 17th with one swarm. August 1st he had realized thirteen swarms.

W. S. Grant, of Poland, commenced with seventeen swarms, and has realized five natural and thirteen artificial swarms, and 625 lbs. box honey.

H. B. Rolfe, of Westfield, (a school boy,) commenced one year ago last April with six stocks of M. S. Snow's Italian bees. Last autumn put eleven swarms in cellar, and wintered two outside, but one lost its queen, leaving him but twelve in the spring. He now has forty-one stocks from the original six (besides four which went to the woods,) only ten of which are not hybridized. He has taken off 500 lbs. box honey, which he thinks pretty well considering the number of swarms sent out. He depends entirely upon natural swarming. No surplus honey last year. One swarm of hybrids, sent out four swarms in May. The first issued the 15th which sent out a very large swarm June 25th, filling a Langstroth hive, and going into the boxes, filling one set, and commenced on second set. July 6th another swarm issued from the same hive. Another swarm of hybrids came out and was hived May 31st, and in just twenty-seven days thereafter sent out a large swarm, and at night he took off 33 lbs., 5 oz., of box honey besides; the hive was full. (Beat that if you can?) This swarm also sent out a fair second swarm July 9th. Another swarm of hybrids issuing June 1st also sent out a swarm in twenty-seven days, but had about half filled the boxes when the bees went to the woods, because he did not get home from school in season to hive them.

E. H. Jenner, of Busti, realized 75 lbs. surplus honey from one swarm.

U. S. Ladue, of Brocton, took two young swarms from one swarm, and 50 lbs. of honey from one of the young swarms and the old swarm.

John Furman, of Portland, had five swarms last fall, but only one in the spring, which has produced him two swarms and 25 lbs. honey.

Mr. H. A. Pratt bought four swarms one year ago last spring; raised six young swarms; five came through the winter very feeble; fixed feeding, but did not succeed very well; has received this year twelve new swarms and 30 lbs. box honey.

Mr. L. Weeks commenced keeping bees about twelve years ago; has one swarm in a house which now contains about 400 lbs. honey, but does not think they are as profitable as where kept in hives. Has now seven swarms from three wintered; uses box hives.

H. B. Woodcock, of Stockton, from one swarm has realized two young swarms and 30 to 40 lbs. box honey.

J. G. Harris, of Westfield, commenced three years ago with three stocks in box hives. Has now fifty-four stocks in Langstroth hives. Took off this year over *one-half ton* of box honey in three pound boxes.

L. R. Whitford, from seven swarms in the Beebe hive has 165 lbs. surplus honey; number of young swarms not stated.

Mr. Watkins, from two swarms has five new swarms and 100 lbs. surplus honey.

W. H. Cook, of Harmony, has kept bees since he was eighteen years old. Had twenty-three swarms last spring, eight of them very light. Fed through the winter. Has taken off over 1,100 lbs. box honey, with several hundred pounds still in the hives. Has twenty-four new swarms, ten of which have yielded $100 worth of surplus honey. One swarm has swarmed twice, and from the old swarm and one of the new ones he received 119 lbs. honey.

Mr. E. R. Hubbard, of Water Valley, Erie Co., spoke with great interest to all present. He usually kept from 60 to 75 swarms. He thought $100 invested in bees, and properly cared for, would yield a greater profit than the same amount invested in any other kind of farm stock.

Mr. Richardson had received 123 lbs. surplus honey from one swarm, and 41 from a young swarm.

J. C. Cranston, of Sheridan, spoke at some length in reference to the management of bees, and recommended the use of rum as a wash for the hands and face to prevent being stung, and

also referred to his moth trap, offering the use of it to any gentleman present.

J. M. Beebe, of Casadaga, exhibited and explained his patent hive and feeder.

Mr. Hubbard also exhibited and explained his hive and avowed it as his opinion that these two were the best now before the public—an opinion generally concurred in by those present.

On motion it was resolved that the next annual Bee Meeting be held at Mayville—the time to be designated by the Executive Committee. A semi annual meeting will be called in the spring.

IRA PORTER,
Secretary pro tem.

The following reports are additional to those referred to and received since the convention adjourned:

Report of Elliott Bachelor, of Stockton.

I commenced the season of 1870 with three swarms of bees. One in the Langstroth, one in the box, and one in J. M. Beebe's hive. From the three I received twelve young swarms and 120 lbs. box honey, which was taken from the Beebe hive, with the exception of 6 lbs.

Report of Franklin Kelley, of Pomfret.

Commenced the spring of '70 with two stocks of bees—one in the Bingham and one in the Beebe hive. The Bingham hive gave me one young swarm and 48 lbs. of surplus. The Beebe hive gave three young swarms, and the first young swarm swarmed, making four young swarms, and 108 lbs. surplus honey.

Report of Sylvester Munger, of Delanti.

Commenced the season of '70 with five colonies of bees—some in the Langstroth, some in the Beebe, and some in the box hive. I received 300 lbs. of box honey and eleven young swarms. I prefer the Beebe hive to any I ever saw.

[For the American Bee Journal.]

Novice.

We have been looking over the "*Annals of Bee Culture*," for 1870, and must say we were very much interested and consider the articles generally remarkably well chosen, and well written, with a view of bringing forward prominently the progress made in the year.

Mr. Thomas's article we should have felt inclined to criticise some; but the editor in his note at the end of the article, has said all that we would say, and perhaps more, although we think bee-keepers of large experience in artificial swarming, will very nearly agree with Mr. Adair.

By the way, Mr. Editor, we *did* think your indulgence rather severely trespassed upon, when the vendor of a patent hive took the columns of the Journal to proclaim boldly his hive the "best in America," without so much as saying "in his opinion," and then to refer your readers *en masse* to the advertising columns. We could not help wondering what a rush there must be (if every one credited the strong assertion) to make an offer. An offer for what? When will the community ever learn that the fact of a patent having been granted on an article, does not necessarily imply that said patent is of any *value?*

What would be thought of a man who should locate himself on the beach of Lake Erie, and proclaim that some barrels of water he had just dipped up "*must be sold,*" and urge the community to make him an offer at some price or other? In case he could persuade people, (and that is what patent right men *do* do as a general thing,) that the water he had just dipped up was superior to that remaining in the lake, he would probably make a sale.

As Mr. Thomas had his "say" several times in the Journal, he certainly cannot complain of what is allowed to be said of him and his hive on pages 103 and 105.

Mr. Kretshmer's article in the "Annals" on in-door *vs.* out-door wintering of bees, we must think a step backward. To settle the matter he says, he concluded to test it himself, and then gives the result as though no one had ever made a similar experiment before, and informs us just why it is. Does Mr. Kretshmer forget that almost all the bees in America *are* wintered on their summer stands; yet they do not get two swarms and 149 lbs. of honey, each, for all that. Why is it?

From the last few lines of his article we thought we might get his idea, namely, that the *hives commonly used are not suitable*, and now the happy thought struck us, that we would write to Mr. Kretshmer and ask him if he will be kind enough to tell us just what sort of hive he uses. But here again the thought occurred that *he too* may be a patent hive man; and, oh, lamentable human nature! the facts they give are much one-sided, and 149 lbs. 8 oz. does look surprisingly like some of Jasper Hazen's experiments to get at FACTS. (We might think of the two swarms that he has besides, and Mr. Hazen don't have; but we won't until we see if it is really a patent hive.)

We presume Mr. Quinby, Adam Grimm, and hosts of others have tried the same experiments in wintering, for a great number of years, and with hundreds of stocks, and yet we believe they are satisfied that special repositories are a decided advantage. In our locality we think it safe to say, that one-fourth of all the bees raised are lost in wintering out of doors, that would be saved if properly protected, from the frost and sudden changes.

We really doubt if it be possible to winter bees in an apiary of fifty stocks, all strong and well supplied with honey and winter passages, without losing some of them; and those remaining will, many of them, be so weakened by losing a few more at every sudden change of weather, that they will not compare at all with those wintered in-doors.

In regard to brood, all of our stocks that we opened, (and that was a good many,) had con-

siderable brood in January last winter. As this matter of brood has been often mentioned as an objection, we think perhaps ours may have been stimulated by leaving the door open a few nights, which we mentioned we did on account of being obliged to use saw-dust that was quite damp.

As to feeding rye-meal, &c., in February, this is easily and often done, by removing the stock from the house at that time; but our objection to so doing is, that the result would be *too much brood*, long before it is needed.

Mrs. Tupper some time ago gave the result of her experience, that brood had better not be encouraged too much, before about the first of April, and our experiments corroborate it. It is true, we can stimulate bees to raise brood, so as to have them fill the hive and possibly swarm as early as the middle of April, but the danger of mischief from a sudden cold snap, and having a large number of bees before they can be of any use, makes us think it cannot be good policy. Not but that we would have all stocks strong in April; but then there is also an extreme in having *too much brood early* in the season.

Any one may easily try the experiment for himself. We presume different localities would give somewhat different results.

A correspondent of the Journal mentions a difficulty in laying a frame of broken comb down flat, in the upper part of the hive, for the bees to mend. The caps on the hives we used for that purpose, were made to accommodate boxes, and are large enough to cover the honey board and all, and the honey board is an inch longer than the top bars of the frames. We think it would pay to have a cap made on purpose, to cover a frame when laid flat on a board.

In consequence of the dry weather this fall, we have been obliged to give back some of the honey taken away—about as much as we took of the gathering from the autumn wild flowers; so that the surplus honey given us by our forty-six stocks, (made by artificial swarming entirely, the year before from *eleven*) stands at six thousand one hundred and sixty-two (6,162) pounds, besides eighteen new swarms. The sixty-four stocks we now hive, are all in good trim, and will be ready for work in 1871, *all of them*, we trust—unless we are yet *too* much of a NOVICE.

[For the American Bee Journal.]

Bees in Kansas.

MR. EDITOR:—We have caught a great deal of enthusiasm in reading the two numbers we have received of the Bee Journal. All we are sorry about is that we did not subscribe sooner. Put us down for life, as a subscriber, or at least as long as we keep bees.

But we are not able to crow about the amount of honey we have slung out this season. We wish we could join the enthusiastic chap of Washington Harbor; but the hurrah comes out of the other corner of the mouth, or "over the left."

Bees have done very poorly here this season; worse than for many years previous. There is no doubt that many bees will perish here the coming winter, on account of the scarcity of stores. Intelligent bee-keepers will, of course, endeavor to carry their bees through by feeding.

In the spring of 1869 we had three hives of bees, and we sold 250 lbs. of surplus honey, besides what we used in the family, and increased our stock to fourteen. Every one of these went into winter quarters with more than fifty pounds of honey, and every one came out in the spring all right.

Some persons seem to be astonished at the result of NOVICE'S honey harvest this year. But if we had last year restricted our number to the same rate of increase as Novice did his, we might have netted at least 250 lbs. of honey to each original hive we had in the spring; which would have beat Novice all hollow. But, as to this year, we have nothing to say. We did sell 201bs. of surplus honey, and increased our stock from thirteen to thirty; but at least half of them will have to be fed or they will starve before spring. This season the linden trees failed to blossom, and though the late sumac, buckwheat, and other fall flowers blossomed as usual, but the honey was not in them. If it had been, I know the bees would have got it. Why the flowers failed to yield honey is a mystery to me.

We have the usual enemies to bees here as elsewhere, in the shape of birds and moths. But the worst enemy of all that has appeared, is a large animal or biped. He has infested this community for nearly a year; and has been seen to put bees in his mouth by handfuls. But it is not the bees that he puts in his mouth that do the damage, but the lies that come out. This biped calls himself the "bee-man," or L. Twining, "Patent Bee Hive Vendor," and seller of *six secrets* for handling and managing bees. For ten dollars he will tell you what the six secrets are, and give you a piece of paper that says you have a right to use a certain improvement on bee hives patented by E. F. Chevalier. The hive that he exhibits as his patent is a box-hive, made about two inches wider at the top one way, with the Langstroth frames; and for every right he sells he could be prosecuted by the owner of the Langstroth patent. This box sits on what he calls a "bee protector," a miller trap and feed trough—two capital places to breed moths. If rightly named it would be called *bee-killer*.

But with his system you can make from sixteen to sixty-four swarms from one, in a single season—that is, if his own word was good for anything. Though he generally requires a pledge of honor that the secrets shall never be revealed, he neglected to require that from several, and the secrets are out. I was going to say that I would put them down here for the benefit of the readers of the Journal; but it will be no benefit to the reader unless a hearty laugh would do him some good. We here quote from the *bee-killer's* circular, that you may form some idea of the great value of the secrets before we tell you what they are.

"Our secrets are: 1st. *Taming bees, however cross*, so that they can be handled as readily and safely as flies, by any one.

"2d. A food that costs nothing and is always at hand, by the use of which the largest swarm of bees can be well wintered and *not consume five pounds of honey.*

"3d. A costless substitute for bee-bread, for want of which whole swarms frequently perish, while the hive is full of honey.

"4th. A prevention of drone bees, which eat not less than 25 lbs. per swarm, *each season*, and is, therefore, so much thrown away.

"5th. A place or situation for bees, both summer and winter, by which *bee cholera* and other destructive diseases *are generally avoided.*

"6th. A bait for millers, also costless, which attracts and destroys this pest of the apiary.

"This discovery is the result of the *one hundredth experiment* of Mr. Twining, and is worth *more than twice the price* of the *Right.*"

Now we will give you the great secrets, in the order as above:

1st. "Smoke the bees well; close the hive and drum on it a few minutes. Then rub urine on your hands and face; open the hive; put your hands over your face, and your face down close to the bees, and blow on the bees through your fingers.

2d. "Urine evaporated in the sun about two weeks in an oak trough.

3d. "Ground chess.

4th. "Cut out the drone-comb.

5th. "Keep your bees on the north side of buildings, out of the hot sun in the summer, and where there is no foul air.

6th. "Whey off thick milk cheese."

Now this charlatan of a beeman will soon infest other sections of the country. For a complete remedy, apply to Prof. Jared P. Kirtland, Cleveland, Ohio, or to the undersigned.

NOAH CAMERON.

Lawrence, Kansas, Oct. 28, 1870.

[For the American Bee Journal.]

Something on Hives.

Last year I made and used four Price's hives, as described in the Journal Vol. IV., page 87, and I like them so well that I have increased the number to twenty-four. Many persons have been at my apiary to see this Price hive, and after seeing me handle the bees and the hive, and I ask them—"Well how do you like the hive? the answer invariably is—"tip-top! That beats anything I ever saw. That can't be beat!"

I sold a swarm to a man, and in selecting it we handled over four stocks, and he remarked—"I have been looking for miller-worms, and have not seen one yet." With a half pitch to the bottom board, tight joists, and rosin and tallow melted together and poured hot into all the corners of the hive, we may say good-by to the miller worms.

To winter bees on their summer stands, this hive cannot be beat. I take off one of the honey-boards and place an old bag or a piece of old carpet over the frames, letting it rest right on the frames, and then fill in all around with dry chaff or cut straw. The bees will not fly out and perish on the snow, nor freeze in the hive. When I opened my hives last spring there was not a particle of mould on the combs, and I never had my bees winter so well before.

There is no crushing of bees with me, such as Mr. Duffeler complains of. I plane the division board to a sharp edge, and by being a little careful, can set them down while the bottom board is covered with bees, without ever crushing one. Mr. Duffeler also complains, that his combs are uneven and all gone astray. I have a lot of as straight combs as you will find in any apiary in that size of frames. I think Mr. D. went astray when he broke up the whole concern. If he had followed the directions of Mr. Price, he would have had no difficulty in getting straight combs. Perhaps he does not understand Mr. Price's directions. He says, also, that he does not know what Novice means by being well *rooted* in strong stocks. There is a thirteen year old boy in our town, who reads the Bee Journal, owns three swarms of bees, and hived and sold humble bees to the boys last summer. I asked him if he was going to pick a good strong stock or swarm of bees from my apiary, what one he would take. He replied—"one that had plenty of honey and lots of bees."

Some may think, that I have an axe to grind, and want some one to turn up with plenty of greenbacks. To such I say, I have no hives for sale, and no interest in bee-hive territory. Mr. Price is a stranger to me, excepting what little I have learned of him through the Bee Journal.

I think Mr. O. E. Wolcott, (who lives about seven miles from me,) would not have lost his apiary of over sixty stocks, if he had used a hive that was deep up and down. The bees would have kept warm, and the honey would have supported them.

There are but few here that are Italianizing their stocks, most of the bee-keepers being afraid, apparently, that the Italian bee is a humbug. I have four swarms of Italians, and am going to Italianize the rest of my colonies as soon as I can. I think I ought to be on the sleeping car, for it is bed-time.

Argentine, (Mich.) Oct. 15, 1870.

* The writer of the foregoing forgot to give us his name, though remitting for his subscription. *Whom shall we credit?*

[For the American Bee Journal.]

A few Inquiries.

MR. EDITOR:—I wish to ask through the Journal for a description of Mr. Gallup's hive, or the one he prefers or has in use, if he will give it. I am using what we call a Quinby hive, or Langstroth Quinbyfied; but would like one with side arrangement of boxes.

I would also ask some of your correspondents what is the difference between cross and side frames, or frames running from front to rear or from side to side.

I see a great deal written in the Journal in regard to cheap Italian bees, seeming to touch Mr. Alley somewhat. I bought some from him this season. The first was the finest queen I ever saw, and I have seen a few before. I think he is in every respect a gentleman to deal with.

Mr. R. S. Terrey, of Bangor, Maine, had hives and bees at our State Fair, and honey also. His hive is eight inches deep, made to set one on top of another, from one section to any number wanted; but I do not like it.

I like the Bee Journal very much.

H. B. CONY.

Augusta, Maine, Nov. 3, 1870.

[For the American Bee Journal.]

Artificial Queens, and Swarming Fever.

I cannot let Mr. Price, in the November number, make a catchword for his hive, with my article of September, 1870.

The hive I intended to speak of is not the *Reversible, Revolvable, Double-cased, Sectional Bee Hive*, but simply a modification of the old pattern of the Price hive, as described and engraved in the American Bee Journal, Vol. IV., page 87.

After having manufactured a number of these hives, I was compelled to break them up; for the square frames, held angling, were so much *reversible* that they capsized badly. In order to prevent that vexatious reversibility, I contrived to re-construct those hives, giving them frames with *five* sides instead of *four*. By this means, every frame was increased in surface; and it is to that increase, and to the shape of the frames that I attribute, in part, the success of my bees in those hives.

Mr. Price thinks that our *wisdom* of artificial queens is *running the race out*. I have heard some temperance men maintaining that wine is poison. I smiled at that idea, thinking that wine must be a very slow poison, for all my ancestors died more than seventy-five years old, although drinking wine freely at all their meals. I guess it is the same with artificial swarming. For twenty years the Italian bees have been subjected to this mode of queen raising, yet the Italian race is better than the naturally swarmed black bees.

For instance, this spring I sold to Mr. Roberts, of Provo City, Utah, fourteen hives, which all had artificially raised queens. Besides those, Mr. Roberts got one hundred and fifty stands of black bees, whose queens were all naturally raised. Yet my artificial colonies proved to be so much better than the blacks, that Mr. Roberts wrote to me, some weeks ago—"I am so contented with your Italian bees, that I wish I had bought all Italians."

Mr. Roberts will be present at the Bee-keepers' Convention in Indianapolis. Mr. Price, or any other person feeling interested, can question him as to the truth of my allegations.

Some time ago Mr. Gallup wrote to the American Bee Journal, that the artificial queens were poorer than natural ones. But he seems to have modified his views on that subject somewhat, for he writes in the October number of the Illustrated Bee Journal—"My theory is that a larvæ fed, as a worker, six days, and then changed to a queen, is but very little if any longer brood than a worker. Yet a queen cell, built over an egg, and fed as a queen from the start, I have not been able to discover why they are not as good as a natural queen raised at swarming time."

Some queens in Gallup's apiary emerged from their cells after eight or nine days. I have never seen queens emerging in eight or nine days. The shortest time I have recorded was some six or eight hours less than ten days.

Let us remark here, that when honey is abundant in flowers, and the weather warm, no matter in what month, every good colony raising queens gets the swarming fever; and if the bee-keeper does not remove the supernumerary cells, there is the greatest likelihood that he will get one or more swarms from the colony rearing queens.

The means used by Mr. Price to obtain or produce the swarming fever are, of course, idle,—that fever being a natural consequence, in a good stock, if building queen cells in favorable weather.

But I do not see what influence that swarming fever can have on the more or less vitality of the grubs!

Some credulous people believe that the crop of potatoes is more abundant, if the sets are planted during the old moon, than if set at the time of new moon. I suspect the swarming fever has as much to do with the grubs, as the moon with the potatoes.

Hence, till some more serious reasons are advanced by Mr. Price, I, and many others, will not admit that, in raising queens artificially, we act against nature, reason, or common sense.

C. DADANT.

Hamilton, Ills.

[For the American Bee Journal.]

A Summer's Operations.

MR. EDITOR:—I have been experimenting some with bees, hives, and melextractors, the past season. I am too busy at present to write much, but will give you the results of my operations with one colony of Italians. They were in a Langstroth hive with eight frames, in the spring, with a pure Italian queen procured from Mr. W. H. Furman, and introduced late last fall.

July 10th, had drawn eight frames with brood and bees, to rear queens.

July 29th, forced a full swarm "Gallup fashion," with old queen—compelling the old colony to raise a young queen for itself.

August 10th, transferred the old stock to a ten frame hive, giving them two empty frames to fill; and also cut out eight "natural, prolific, hardy queen cells." (Price.)

September 3d, extracted forty (40) pounds of honey and got a No. 1 swarm, leaving plenty of honey for winter.

I do not know how I could get along without the American Bee Journal, and am trying to persuade all my neighbors to take it also.

J. E. BENJAMIN.

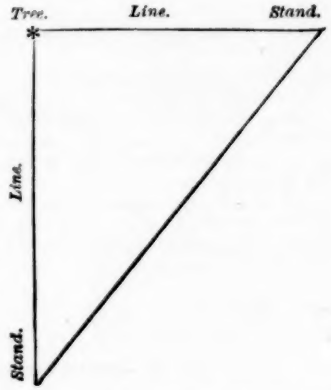
Rockford, Iowa, Nov. 7, 1870.

Water is absolutely indispensable to bees when building comb, or raising brood.

[From the Western Rural.]

Hunting Wild Bees.

Bees are generally hunted in the fall, after the flowers have failed, or we have had one or two sharp frosts. The hunter takes with him into the woods a dish in which there is honey in the comb, and an ash pail in which there are some live coals covered with ashes. An opening where a bee can be seen some distance is selected. For convenience in "lining" the honey is placed on a log, stump, or bush, a few feet from the earth, with the fire near it. A small piece of comb is put on the fire. The smoke from the burning comb attracts the bees; they soon find the honey, fill their honey sacs, and leave on a "bee line" for home.



The hunter estimates the distance he is from the bee by the length of time the bee is gone, and also by the number of bees he has at work in a given time. If he is confident that he is near the tree, instead of getting them at work again directly on the line, he moves either to the right or to the left of it. For instance if the line is due north, he moves his "traps" northeast or northwest, to where he can get a line at a right angle with the first one, and finds the tree where the two lines meet.

J. H. Townley.

Parma, (Mich.)

[For the American Bee Journal.]

Remarks and Inquiries.

Mr. Editor:—We are behind the times in this country, and as regards the improvements of the Nineteenth century, we are living in another age. Too many of us in milling, have not discarded the old custom of our fathers of carrying a stone in one end of the bag, to balance the grist in the other. Some have purchased the *improvements* offered, but have been so badly bit, they are like the *burnt child*:—and now all over this country, in some out-of-the-way place, in yard or outhouse, can be found patent churns, washing machines, rat-traps, and bee-hives, all useless, but costing their owner such an inadequate outlay, compared with their real worth, they were not committed to the kindling box, but allowed to remain on the premises, as monuments of "the fool and his money!"

Now, Mr. Editor, we do not know how it is in the States north and west of us, but it appears to us that all the patent useless machines and implements of the inventive "wooden nutmeg, and horn gun-flint" New Englander, find their way down here; and *ad captandum vulgus*, the owners or their agents assume and put on a grave, sanctimonious expression, while they tell us, the only inducement in visiting us was *pro bono publico!* The *model* in his hands works like a charm, and he finds a purchaser for State and county rights, to make and use, pockets his money and away he goes. But when the concern is made up LIFE SIZE, it won't work, and the whole patent family of improved implements are abused and cursed, and many really valuable inventions cannot be sold, because worthless ones have found their way in our midst.

We have extended to a greater length than intended, our introduction to some questions which we wish to ask through the Journal, desiring some correspondent to answer them. On reading the experience of persons who have the past season, used the melextractor or honey slinger, we are entertaining visions that after the smaller vessels are filled, we shall resort for repositories of honey to the tank or cistern. We have never used the extractor, nor have we yet seen one at work, but we intend to have one next spring. Now the questions—

1st. Whose extractor do you use? Does it work well? And what is the price?

2d. How often do you extract the honey from the same comb? Do you wait until it is capped?

3d. If the honey is not capped, and is thin and watery when extracted, will it not ferment and sour?

4th. Do you extract honey from combs having brood within it? If so, what becomes of the uncapped brood?

5th. Is the colony not troubled with robbers, on replacing the dripping frame into the hive?

These are some of the troubles that present themselves to my mind, at this distance; any suggestion of those experienced in its workings will be of interest, Mr. Editor, to several of your readers and lovers of nice honey. It occurs to us that if honey is extracted within a day or two after it is deposited in the cells by the bees, it will ferment and spoil; or if it does not, it will not be so valuable.

Let us hear from those who have practically tested these Honey Extractors, for we are seeking for *further* light in this *bee*-nighted region. Do not read this and throw your paper aside, for some one else to answer, or speculate upon in their own minds; for we are in earnest, and really want an answer to the inquiries we have made.

W. P. Henderson.

Murfreesboro', Tenn., Nov. 5, 1870.

Until the fifteenth century honey was used instead of sugar.

[For the American Bee Journal.]

Report of a Beginner.

MR. EDITOR:—As I am a beginner in bee-culture and this is my first communication to your much esteemed Journal, you must excuse brevity or length, whichever it may turn out to be.

In the spring of 1864, I purchased three stocks of bees in gums, made of hollow logs, having not even a hole in the top for ventilation, let alone for the bees to work through into surplus boxes. Well, I had some other common hives made, with caps, and used them with varying success until the spring of 1869, at which time I had still only three stands of bees. I had been trying all the time to increase the number, and with but little success, and got no surplus honey from them. In the spring of 1869, I obtained some movable frame hives, believing that I could make them a success; at least I could get at and be revenged on these pests, the bee-moths, that had robbed me of my expected luxury. Well, I split my old gums open, and removed their best combs and the brood, in May, to my movable frames. From one of the stocks thus transferred, I took 128 pounds of surplus honey. From the other two I took from 40 to 50 pounds surplus. The one from which I took 128 pounds swarmed once; the others cast three swarms each.

My bees wintered out on their summer stands, with only their hives to protect them from cold and storms. The spring of 1870 found me with ten stocks, two of which had no queens, but only fertile workers, according to book theory. In one of these I could find nothing that looked like a queen, and into it I inserted queen cells three different times. They were each time destroyed, and I finally lost the stock. In the others I inserted young brood, but they would start no queen cells. At last I took a good fertile queen from one of my other stocks and put her in this hive. But before putting her in, I took out all the combs and bees, as I was determined to destroy everything that looked suspiciously fertile. Well, I found a nearly wingless queen. I killed her, put my very fertile queen among the bees, and let her thus creep into the hive. But, alas! she was killed by the little wretches, and dragged out before next morning. They then went to work and raised a queen from a sheet of brood which I had put in.

Up to the middle of June bees did well here. Since then the black bees have not gathered as much as they consumed. I have only one Italian stock. It has gathered honey all the season. But my bees are almost destitute of pollen. I have some stocks that have none. I am giving them rye flour. Will they live on it; or can I give them anything better?

A. T. BISHOP.

Le Roy, Ill.

The quality of honey varies exceedingly, some being dark and often bitter and disagreeable; while occasionally, when gathered from poisonous flowers, it is very noxious to the human system.

[For the American Bee Journal.]

Foul Brood.

I have lost two hives by this disease in two years. They were both the lightest colored Italian queens that I had at the time. In one the disease was first noticed on the 10th of August, 1869. About one-half of the dead larvæ were in uncapped cells. In the other, it was found on the 31st of August, 1870. The dead larvæ were all in capped cells. About three-fourths of the brood dead. No uncommon smell was noticed.

I had opened the latter hive oftener than others, because it was less crowded with bees. I had seen a few dead larvæ in the fore part of July, but they were soon removed. The colony gained thirty-one pounds on basswood blossoms, in July.

They had no chance to catch the disease. The last bees I got was a hive from Mr. Quinby in May, 1868, which lived two years, and died 1st of March last, of starvation, with a large swarm and no honey. There are no other bees within fifty miles on the main land. This is an island, and the cool air from Lake Michigan might account for less smell than in other places.

There were a few dead bees in capped cells, with perforated covers, in September, in three of my four hives. One of them had cleaned all out by the 12th of October, and two had a few remaining on the 31st of October, when I put them in the cellar. They were all crowded with bees and had plenty of honey. On the 27th of September I took eighty-five (85) pounds of honey from three hives, leaving them forty to fifty pounds each.

I think the first of June next, if they are diseased, I can put them in empty hives and save the swarms; or when they swarm I will not give them a comb from an old hive, as I have usually done.

My four hives gained one hundred and thirty (130) pounds from September 5th to the 24th, or thirty-three pounds each. It is the first time in three years that they gained any after 1st of August.

HENRY D. MINER.

Washington Harbor, Wis., Nov. 1, 1870.

[For the American Bee Journal.]

Introducing Queens—A Suggestion.

MR. EDITOR:—From various causes I am not much heard from, and mainly because the abler part of the fraternity are furnishing us with topics and discussions which give to my mind ample food to digest and experiment in what little time I can devote to it now; though I expect, if I am spared, to give my full attention to the work next season.

I will venture to submit an idea in regard to introducing queens successfully, under all circumstances. There has been much said on the subject, and many methods proposed, yet we find all of them failing at times. Now all these methods may be and perhaps are good, if they

are applied when the colonies to be supplied with queens are in a proper condition to receive them.

When a colony has larvæ, and young bees hatching, queens can be safely introduced by almost any method, without trouble. But when there are no more young bees among them they are loath to accept a queen; and my experience is that when there is no brood in the hive to furnish young bees, the mature bees soon become too old, and apparently of fixed habits, to receive a queen readily. At least I have found it impossible, under such circumstances, to induce the older bees to accept one. I have offered to such, unhatched queens in the cells, and they would immediately destroy them—none being allowed to hatch.

Now, if there is any brother in the fraternity who can tell us how to deal with such old scamps, so as to induce them to revert to their more youthful habits, and accept an offered queen, the information will be gratefully received by me. I find some trouble even in uniting such bees with other colonies.

S. B. REPLOGLE.

Roaring Spring, Blair county, Pa.

[For the American Bee Journal.]

Worms in Combs.

A correspondent in a late number of the Journal, said that some of his bees, after gnawing off the caps of the cells, were unable to come out; and he wants to know what was the matter. One word will tell—"WORMS."

I noticed some of mine in the same fix, soon after reading that article, and on pulling them out I found, as I expected, a small worm-hole near the bottom of the cell. I had before noticed that those bees which could not get out were in lines, and after pulling out a few I found a small worm. They (the worms) work their passage from one cell to another, perhaps two-thirds of the way towards the centre of the comb, eating wax, bees' wings and legs, and leaving a fine web behind, which holds the bees in the comb.

I supposed they were not the larvæ of the ordinary bee moth, as I have generally found these near the surface of the comb. But I put some combs containing these small worms in a glass jar, and in due time had from fifteen to eighteen fine large moths of the ordinary kind. My conclusion is that these worms, while small, work near the septum of the comb, and when grown about half an inch long they work next to the surface.

J. L. HUBBARD.

Bricksburg, N. J.

Lying advertisements and plausible misrepresentations of brazen-faced impostors will still drain the purses of credulous [bee-keepers], while thousands, disgusted with the horde of impositions which are palmed off upon the community, will settle down into a determination to try nothing new.—LANGSTROTH.

[For the American Bee Journal.]

Who Will Help?

How can the circulation of the American Bee Journal be increased? is a question that should be considered by all who read it. Now there is a way, and a very good way, to increase its circulation. This, namely: Let every reader and subscriber send at least one—or if more than one, the better—new subscriber, (with the money, of course,) and it would not be long before its circulation would double that of all others published in this country. And it certainly should be so, as the AMERICAN BEE JOURNAL is the one that should receive the support and cheering aid of all bee-keepers throughout the country, and for the following good reasons: It was the first one published in the English language, commenced in the sole interest of bee culture, and sustained for years by the editor, at a sacrifice of time and money. And all who read it, (at least in this part of the world,) say that it is the most reliable and the most interesting of all they have seen; and we will say that we know something about the bee papers of this country. Secondly, the editor of the American Bee Journal does not occupy any portion of its columns with his own advertisements; and, in fact, he offers no patent bee hives, text-books, queen bees, or other clap-trap for sale—and when we pay for the Journal, we are not paying the editor for a paper containing his own advertisements. We do not want to do or say anything against other bee journals sent out in this country, but we do want our favorite American Bee Journal made to pay for the trouble and time it costs for publishing it, and to this end we offer the following

PREMIUMS:

To the person who sends in the largest number of *new* subscribers before February 1st, 1871, I will send one of my

BAY STATE BEE HIVES,

free of cost, or one of the best, most convenient and lightest

HONEY EXTRACTORS

offered for sale. Said machine is made of metal, and with ordinary care, will last a lifetime, and I will guarantee that one person can empty from one to five hundred pounds of honey per day, with the use of it. I have sold these machines for *ten dollars*.

FURTHER, to the person who sends the second largest number of new subscribers, I will send *two* of the best and purest

ITALIAN QUEEN BEES

I can raise. And to the person who sends in the third largest list of new subscribers, I will send one pure Italian queen bee.

I will add that I have no interest in the American Bee Journal, only in common with other readers; but as I advertise in its columns, I expect, if its circulation is increased as it de-

serves to be, to have a corresponding increase in my business.

H. Alley.

Wenham, Mass., Nov. 7, 1870.

☞ The above offers are the spontaneous act of Mr. Alley. For the appreciation of the Journal thus expressed and implied, we are duly grateful, and will merely add, for the encouragement of those who may be disposed to make efforts to secure the premiums offered, that, in any case of unsuccessful competition, we will allow the usual commission on all new subscriptions sent in. Thus no one need fear that they may be laboring without remuneration.

[For the American Bee Journal.]

Influence of Form in Hives.

Mr. Editor:—In the last number of the Journal, Mr. Smith pitches into our "preconceived theories," as he calls them. He says that we pitched into the shallow form of hives in the August [September] number. This is true; and we did so because we had used them to our sorrow, though when we first used them we thought we had obtained an invaluable invention, as we then compared them with old-fashioned gums and box hives. He says some condemn and some approve of the shallow form of the Langstroth hive. This is undoubtedly so. The first movable comb hive we saw was in 1857, and it was of the shallow Langstroth pattern, the same as is now sent out as sample hives; and Mr. Smith would no doubt claim that Mr. Langstroth got up the first movable comb beehive in America—which we likewise grant as being true. But in objecting to the Thomas hive he says that "five years ago it would have been considered a very good hive, but the world moves." So it does, and in his advocating its good qualities he says "more rapid breeding will be induced in the shallow hive than in the deep one," &c. I fail to see that the world moves in this. The first form of movable hive was low and flat, and his part of the world seems to have progressed from the low flat form of hive to the low flat form of hive. The world moves backwards up there in Canada.

He says, Mr. Seays' theory and deductions therefrom in regard to the production of brood are not confirmed in his experience and observations, and "the facts of the case warrant a very different conclusion." Now what was our theory and deductions therefrom? See September No., page 63. In drawing a comparison between the advantages and disadvantages of the shallow hive and taller ones, we then said, "the combs are say eighteen inches in depth perpendicular, and twelve inches wide. The bees, in order to hatch brood, as the weather becomes warm in the spring, will cluster at the larvæ end of the combs, and keep up the temperature from bottom to top, because of two combined reasons—the combs being the long way perdendicular; and the natural tendency of heat being to rise, it ascends throughout the entire length of the combs, and thus the proper temperature is attained throughout the hive." This we yet maintain. It appears from what Mr. Smith admits in this same communication that he does not understand my remarks, or if he does, he virtually admits that we are right.

It seems that when we said "as the weather becomes warm in the spring the bees will cluster at the larvæ end of the combs," he wishes to construe our language to mean in winter; for he must know that good strong colonies rear brood in winter, and if I had entered into a minute description of the manner of procedure, time, and place, that the first eggs are deposited, I would have stated, as he does, that in tall hives they begin to rear brood near the centre; and in some cases, where the honey is nearly all consumed, they begin nearer the top, extending the same downward. And in our language, "in early spring, as the weather becomes warm (as in May) the bees cluster at the larvæ or lower end of the combs." The heat as generated ascends throughout the entire length of the brood combs. Now we did not intend to say that all the mature bees were compelled to go below the extreme lower part of the brood; but that a portion of them *must* cluster below and upon the lower part of the brood combs, in sufficient quantity to produce the required temperature, otherwise the queen will refuse to deposit eggs there, or if she should deposit any there, they would not hatch. The bees must therefore cluster *en masse* below the brood.

We make one further quotation from his remarks, and are done. He says, "A tall hive is thought best for wintering out-doors, for we know that bees will place their stores above them when there is room. We know also that they do not cluster on the honey, but below it; and the heat from them ascends and makes their stores more accessible in cold weather. But how is it with the breeding early in the season? &c. What he means by the 'larvæ' end of the comb, I do not exactly know. If he intends to say that they cluster at the bottom of the brood comb, so that the heat will ascend and warm up the upper part of the brood comb for the extension of brood, facts do not warrant the assertion." After having but a few lines above admitted that he knows they cluster "below" the honey and that the heat from the cluster "ascends and makes their stores more accessible" in cold weather, he now says that "facts do not warrant the assertion" that they will and do cluster at the bottom of the brood combs, so that the heat may ascend and warm up the upper part of the brood comb. Why will not the same natural *immutable* law of nature that causes heat to ascend and make their stores more accessible in cold weather, ascend also in warm weather (as the bees descend to the bottom, for the purpose of extending their brood?). He further says, for a certain reason, that "as the warmth of the cluster will be *diffused laterally* more readily than it will downwards, more rapid breeding will be induced in shallow hives than in deep ones—that the heat will *radiate* towards both ends from the centre" (in the shallow form of hive). This has always been the trouble with me. Heat, in obedience to the natural law, to

seek its equilibrium in temperature, as he says, *radiates* away from the cluster, and thereby gains a lower temperature; and as other air in the hive takes its place, and is rarefied in turn to the given temperature, it also radiates away in its efforts to comply with Nature's demands for an equilibrium, and the rarefied air in ascending passes away from the cluster. This is without hindrance too much the routine in the shallow form of hive; but not so in the taller form, because the heated air, in obedience to the natural law, passes upward; and because the inner walls of the hive being closer together, and the top not allowing the heat to escape, it is more compactly pent up, so that when the radiations take place, they pass not to so great a distance laterally, and the bees can thus retain a given temperature in a larger space than if the equalization by radiation in the shallow hive were not permitted so far from the cluster that the natural law of heated air to ascend, cannot govern it.

Mr. Smith gives his experience in favor of the shallow form of hive, alongside of the Thomas hive. His statements are no doubt correct; but his experience is different from many, very many, others.

The second communication in the same number of the journal, to which this is a reply, agrees with the experience and preferences of thousands. The article referred to is that written by Mr. Calvin Rogers, of West Newbury, Mass.

We are not particularly defending the Thomas hive. We believe that Mr. Smith's first objection from his description of the frames and combs being so long and heavy that they break down, is good. I do not know the perpendicular length of the combs and frames in the Thomas hive, but I use frames nineteen inches perpendicular length. My combs are eighteen inches long and twelve inches wide, and I have no trouble about their breaking down; though there is a reason for their not breaking down in the warmest weather.

J. W. Seay.

Monroe, Iowa, Nov. 10, 1870.

[For the American Bee Journal.]

Letter from Texas.—Italian Bees Wanted!

Mr. Printer:—I hear you print a bee paper, and I want you to send me one to look at, to see if I like it. They tell me you always have much nice readings in it about that queer little crittur that has a sweet tooth in its mouth and a sharp sticker in its tail, as Anne Strother's father told the old bee-hunter down at Powett's Tanyard last summer. I have been keeping bees here three years in the old-fashioned way, that was thought very good away down east forty years ago and longer, where I was born and raised. But somehow I can't get along with them here, as old uncle Brewster used to do in Hockanum when I was a boy. Why, he used to have lots of hives, and honey by the tubful every fall, when he took up his skeps with the brimstone rags. But here we often get nothing at all now. Whether the miller moths that are so plentiful here eat it all up, or the troublesome busy ants carry it all off, I don't know, and with all my watching could never find out. I sometimes think the bees get bewildered among the many strange flowers we have here, and cannot tell where to look for the sweet; and it were no wonder, such odd-shaped things they are. Maybe if we had other sorts of flowers, apple and cherry blossoms and such like, and hollyhocks and asters, such as they was used to of old, or had other bees better suited to the flowers here, we might do first-rate in this climate where the busy fellows could work almost the year round without interruption. Well, cousin Upson was to see us when he came out prospectin', and he told us some wonderful stories about a new kind of hives they have to home, in which the bees build combs as straight as a ruler on sticks, and of the nice little whirligig twirlabouts with which the honey can be shaken out of the combs right into dishes, all ready for the breakfast table. I half believed his yarns when he promised to send me one of these shakers next spring; but Mehitable, my wife, says there was a queer sort of a smirk on his face, and he gloared so slily with his eyes while he was a telling and we was a listenin', that she's sure he was only trying to bamboozle us by his talk. I'm not so sure about that. Then he told us, too, about a new sort of imported bees, with striped backs and harmless queen stings that never hurts nobody, and can be handled, like well-riddled rye, without gloves, in the hottest weather. Wife doubted again, but I think there's a good deal of truth in the story; for when I was in Austin to buy a plow for neighbor Crume and a new collar for my horse, I hear some talk about such queer bees in the bar-room of the tavern. The chap that was a telling about them had a patent hive to sell, too. It wasn't one of them with the straight comb sticks that cousin Upson spoke about, but the man called it the Moth Worm Banisher. He said it was so fixed that when a moth touched it at night a scratcher strikes a lucifer match, and straightway the sudden flash and glare of light frightens all the moths within fifty feet, and away they go, harum-scarum, with a grand flutter and flourish, seeking to hide in outer darkness. That I think is a good invention, for these moths are troublesome and hard to catch, and the best way is to banish them right off. But about them new imported bees the man said he could not see any great good that came of them after all the fuss made about them, except that they made their honey from red clover tops instead of white, and hunted up all sorts of out-of-the-way flowers in by-places and roadsides, which the old kind of plain bees never thought worth looking at. Besides, he said, that while farmers could only make hay while the sun shines, these new comers would make honey, shine or no shine. This seemed to be saying something more for them than uncle Upson knew; and as everybody in the room appeared to believe what the hive seller said, because he had no interest in the matter, I think there is a good deal in it, and wish I had some. Mr. Printer, can't you put me in the way of getting a swarm? I would like to have them soon. Can't they be sent by telegraph, so as to come

before Christmas? Swarming time begins here soon after New Year, when the drones have got over their holiday frolics. How much will they cost, though? If they are very dear I could not afford the expense till after the next cotton crop is made. They say a queen sells for five and six dollars! Just think of that! A little insect about an inch long selling at the price of a yearling colt! If the workers sell in proportion, won't they come high, as cousin Zeke reckons it out? Or if you put them down at even a picayune a piece, and there are thirty thousand in a hive, only think what a decent hive would come to, by the rule of three! Then there's the freight too, if they come by telegraph, for the ticking clerk in the office always figures that out high; and so I am afraid that, if sent by that line, they might in the end cost more than they would come to. Aunt Dinah says she has read somewhere in the Penny Whistle Weekly, (which she gets every now and then at the grocer's around some articles she buys,) that they now send these bees, or some kind of bees, by mail. That, I think, must be a good joke! Why, you might as well send a basketful of hornets by express. Phew, I'd like to stand at a safe distance away and see our soberfaced, steady old postmaster open the bag when they arrived! Wouldn't he make tracks in a hurry, and feel worser nor if he had a dozen big fleas in his ear? No, no, that's a little too tough a yarn to be swallowed by any but a greenhorn, though it is in print. But have those bees I will, sooner or later; and if they don't come quite as dear as cousin Zeke reckons it out, I'll get you, Mr. Printer, to have 'em sent by rail and steam even if they don't come till after Christmas. I'd have them sent by express, but that moves as slow in these parts as our old ox team used to do in old Middlesex, on Saturday nights, when we had hitched up to go sparking. Don't forget to tell the man who sells and sends them, to be sure to give them food enough for such a long jaunt, as the poor things mustn't be let starve on the way. Tell him, too, to pack them well and hurry them forward—"*with speed and care, right side up!*"

Before I close, Mr. Printer, I want to say further, that when cousin Upson was here he told us there was great fuss just now away up in the old States, about some wonderful improvements in bee-keeping, which he said they call "scientific beeculture." Now what is that? How is it made? How big is it? Is it patented? Does it go by machinery? Is it hard to learn how to work it? Or must you go to a sort of school or college to study how to manage it, till you get the hang of it gradually? Couldn't an old man learn to fix it up, without leaving home? How is one to get science into a bee gum, I'd like to know? That's a little above my huckleberry, as we used to say at Haddam school, when a hard question came up, and puzzled the head scholar of the class, though we had to work it out, for all that. Well, well, there was no lightening telegraph in them days, and nobody then dreamt of gold in California; so there may be something new in managing bees, though the wise man said, long years before I was born, There's nothing new under the sun. You'll print all about it, I suppose, and we'll see what it is when the paper comes. Send it on at once anyhow, or somehow.

MILES HADAWAY, 3d.

Palo Pinto, Texas, Nov. 3, 1870.

N. B.—Wife says, be sure to ask whether it's certain that the new bees can make honey. Our old ones are rather poor hands at it, and some years don't let us have any. Now, even if the striped fellows should produce six times as much, it wouldn't amount to anything, after all; for in Deacon Downer's school we were always told that 6 times 0=0; and we had to believe it, for not even the smartest boy in the class could *prove* that it wasn't so, and the Deacon ever insisted on *proof*.

[For the American Bee Journal.]

Where are good Honey Districts?

MR. EDITOR:—I have been attentively watching the correspondence of the Bee Journal, to find out if there is not a better country for keeping bees with profit, than this section of Ohio. Here we have to depend on white clover exclusively, for our surplus honey; and when the season is good, the yield is abundant. But if from drouth, &c., the white clover fails, most of our bees are lost.

I have been keeping bees, "according to Langstroth," for twelve years. In the drouth of 1863, out of sixty hives I lost forty-seven, after feeding a barrel of Cuba honey. In the winter of 1868, I saved only one hive of bees out of forty—lost from the "cholera," caused by drouth and the failure of white clover the summer previous.

Notwithstanding these losses, I have been amply paid for my trouble and expenses. The future of bee-keeping looks so encouraging that I would like to devote all my time to it, if I could find a locality where there is plenty of summer and fall pasturage, or where I should not have to rely solely on the white clover crop.

Bee-keepers, as a rule, are not selfish; and I would like to see the question of the best section of our country for bee-keeping fully discussed through the "Journal." Are there more advantages in the South than in the North?

A. L. BROWN.

London, Ohio, Nov. 14, 1870.

Like the thorough bred scold, who by the elevated pitch of her voice, often gives timely warning to those who would escape from the sharp sword of her tongue, a bee bent upon mischief raises its note almost an octave above the peaceable pitch, and usually gives us timely warning that it means to sting, if it can.

The first important occupation of the worker bee is the secretion of wax for the structure of the cells, and, to effect this, honey must be collected, for it is solely from the digestion of honey that wax is produced.—*Shuckard.*

THE AMERICAN BEE JOURNAL.

Washington, Dec., 1870.

☞ The seed of the Partridge Pea (*Cassia chamæcrista*) referred to in our last issue as a bee plant, has been placed in the Agricultural Department, for distribution among bee-keepers. As the quantity available is very limited, it will be put up in small packages and sent to those desiring to try it, on application by mail to Col. Capron, the Commissioner of Agriculture.

A correspondent suggests that the cases of foulbrood stated, in our last number, to have been cured by Dr. Abbe, may have been of the milder form occasionally found in hives, which usually disappears again without doing much damage. But if this were so, it does not follow that the same treatment would not be as judiciously and beneficially resorted to in such cases for the arrest and eradication of the disease, as when it has assumed the more virulent form. We consider the disease as really one and the same substantially in all its forms, only less harmful in its early stages, as being then less contagious, and therefore more manageable.

Under date of Nov. 4, we have a further letter from Dr. Abbe, in which he says:—

"There has not been time enough given to *test* the permanence of the cure, and it ought to be regarded as still an open question whether foulbrood can be permanently cured in this way, for the effect may be only the same as pruning, and the germs of the disease still remain sealed in the honey cells. I shall examine the hives again in two weeks, after all the brood is hatched.

"I have recently found two more hives containing fifteen and twenty cells with the disease, which were left after all the brood was hatched. These I have treated with Nichols' solution of Chloride of Soda, diluted one-half. This promises more than the other remedy, for it not only cleanses the cell, but disinfects the whole hive. I am inclined to the opinion that if the hive has contained the disease for any length of time, it will have to be treated after every crop of brood, or until all poisonous honey is consumed."

It was recently stated that foulbrood is not now one-hundredth part as bad as it was ten years ago. This may be so in some localities, but our correspondence assures us that it is far more extensively prevalent now than ever before, and this for obvious reasons.

☞ We are assured that a National Bee-keepers' Convention will assemble at Indianapolis, as heretofore announced, on the 21st instant, for a two days' session, and learn that many prominent bee-keepers will attend it—though strong efforts have been made, *in private*, to induce them to denounce it and to keep away. Let all who can conveniently attend, do so—taking care not to be "led astray" by anybody. The paramount interests of bee-culture are to be promoted by such assemblages, and not those of any selfish individuals.

The statement made by the Secretary of the North Eastern Bee-keepers' Association at Utica, that we had been led astray by the representations of Mr. Moon, or any one else, is altogether incorrect and unwarranted. Whatever we said was said from our own knowledge and impressions, and Mr. Moon had nothing to do therewith, either directly or indirectly.

No suggestion for holding a National Bee-keepers' Convention was made by us; nor did we furnish any "hints for topics," to the Michigan Association, or assist in any way in preparing its programme. We announced the intended meeting and its objects in our March number, the regular notice calling the meeting, accompanied by the programme, sent to us by one of the officers of the association having failed to reach in time to be inserted entire. We made no comments then or subsequently, and never thought of inquiring whether ☞ "the names of any of the earnest workers for *our* Journal were among those likely to be present." ☜ But we certainly treated the Michigan Association with proper respect, and did not *forget* nor *omit to state* that, as it was proposed to make arrangements for holding a National Bee-keepers' Convention, it was desired to have "a large attendence of bee-keepers from other States and from the British Provinces."—We have an unfortunate knack of losing sight of self-interest on such occasions; but shall endeavor in future to derive a useful lesson from the examples of our very *disinterested* contemporaries, who contrive so laudably to have *both sides* of their bread well buttered on all occasions.

We presume the Secretary of the N. E. Bee-keepers' Association was so busy writing letters to lead (or mislead?) bee-keepers, that he could not furnish us with the report of the proceedings at Utica, till just in time to be too late for our last issue. It came late in the month (after the November Journal was made up for the press,) in a printed copy as set up for the Secretary's own paper—making it morally certain that he would gain a month's headway therein! Very disinterested Secretary—a model of promptness and propriety! Deserves a medal.

[For the American Bee Journal.]

A CARD.

Mr. EDITOR:—A certain party in this city, is claiming in their circular and the daily papers, that I consider their (or rather his) Honey Extractor

better than any others persons I had seen. I wish to state, in justice to myself and others, through your valuable Journal, that I made no such statement in regard to any honey extractor whatever.

Yours respectfully,

CHARLES F. MUTH.

Cincinnati, Ohio, Oct. 18, 1870.

CORRESPONDENCE OF THE BEE JOURNAL.

WARSAW, (Minn.) Oct. 3, 1870.—This has been a poor season here for bees, except in basswood time.—L. B. ALDRICH.

WINTERSET, Iowa, Oct. 10.—The weather was very dry here in June, July and August. so much so that we shall get very little surplus honey. Buckwheat bloomed finely, and bees have got plenty to winter on, and some to spare in some hives. September and October thus far have been very wet, except one or two days at a time; and now it is wet and cold or the bees could have gathered a good deal of honey in the last four weeks.

Well, perhaps some person would like to have an easier, better, and less wasteful way of feeding bees in the spring with flour, so that they will work at it more naturally or like gathering pollen from flowers. It is this: Take good No. 1. wheat flour and put it in piles of one pint, more or less, to suit convenience. Press it down firmly with the hand or anything else convenient. Set it in a warm place, out of the reach of winds, with a few drops of sweet anise about it, to attract the bees; and you will soon see them lively at work on it, if they are in need of it and the weather is warm enough for them to be out. Fine bolted oat meal, buckwheat or rye flour will perhaps answer as well, but I have not tried them yet. They seem to gather it with much less waste, and less is blown away. Bees gather it on their legs, without resting on or wallowing in it, as where it is given loosely, without pressing down; yet they will gather it all up clean, mostly while on the wing, the same as if gathering pollen from flowers.—Mr. BAILEY.

GEDDES, N. Y., Oct. 18.—This has been the best season here for honey, that I have known since I had anything to do with bees. My experience in bee-culture extends back only seven years, but four years of that time I went it blind, like thousands of others, who, keeping eight or ten stocks, if they got honey enough for their own use, think they are doing well. I started in the spring, with nine stocks and increased them to sixteen, four natural and three artificial swarms. Besides this, I obtained, as surplus, five hundred and thirty pounds of box honey, and seventy pounds of strained honey—leaving from thirty to fifty pounds in each of the hives for the bees to winter on.—My best stock gave me one hundred and ten pounds of box honey.

This I consider a very poor locality for bee-keeping. I live between Syracuse and Geddes, with half or two-thirds of the territory useless for bees. I have not heard of anybody cultivating sweet clover for bees. I do not see why it would not pay to cultivate it. I think if it had not been for the sweet clover that grows along the New York Central Railroad my bees would not have stored any surplus honey this year. This clover is in blossom for over two months, and is alive with bees when the weather will admit.—I consider two dollars invested in the Bee Journal, money well spent.—H. O. SALISBURY.

WELLSVILLE, Mo., Oct. 18.—Our season early was good. Dry weather through May and June spoiled our season, till the middle of July; since then it has been good. Bees are strong in winter stores. Ours is a good bee country.—J. BARFOOT.

WILLOW BRANCH, Ind., Oct. 20.—I have not done quite as well with my bees as I expected, this season. July and August were very dry. Commencing in the spring with seven colonies (all black bees) in log and box hives and not an Italian bee within ten miles. With the assistance of Dr. Hathaway of Muncie, we transferred them on the 27th of May into Langstroth hives, made fourteen out of the seven, Italianized them, and on the fourth of July run them up to twenty-six by artificial swarming. The drouth then setting in and continuing so long, I was almost scared about my pets, but with September there came good rain, and as I had sown 4½ acres of buckwheat they laid up plenty of winter stores from its sweet bloom, though they did not give me any box honey. They were like Novice's bees, "nary comb" would they build. Now, by the way, Mr. Editor, Who is Novice? and where does he live? I wish to know also where Alsike clover seed can be bought on reasonable terms. I want to sow from five to ten acres next spring.

I am going to try to winter my bees on their summer stands, as they all have plenty of honey, and I have no melextractor, to take it from them with.—Is it common for bees to stop breeding so early as the first of October, while the weather continues fine? Mine ceased that early this year.

I can recommend Dr. Stephen Hathaway of Muncie, Ind., and Mr. Adam Grimm of Jefferson, Wis. as being reliable and responsible queen bee breeders, so far as I have tried them. I do not see how any bee-keeper can do without the Journal. Success to it, and all bee-raisers.—J. SMITH.

RIDGEFIELD, Conn., Oct. 21.—Bees have done well here this season, although it has been very dry since June. My Italian stocks are very heavy, fully one-third heavier than the blacks. I believe I am the only one in this town that takes the Journal, and am sorry that I have not the first four volumes. I have tried to get others to subscribe, but they say they cannot afford it; while I am certain that I cannot afford to do without it.—S. W. STEVENS.

LATTNER'S, Iowa, Oct., 27.—Enclosed find two dollars for the Bee Journal, which I think is as necessary for a beekeeper, as a compass for a sea-captain. The honey harvest for 1870 is over, and in this locality it has been a good one. My bees have done well. I have a credit for their account of eighty-four prime swarms, and eight hundred and forty-two dollars for honey sold, with about two hundred dollars worth yet on hand, for this season's work. My best hive yielded 242 lbs. of honey and one swarm. The honey was taken out with the honey extractor, and sold for twenty-five cents per pound. The swarm yielded thirty-six pounds of box honey, at thirty cents per pound. Whole amount from the best hive, fifty-one dollars and thirty cents ($51.30) and one swarm (Italian) worth ten dollars, ($10.)

Next season will probably be a poor one for all those beekeepers who do not use movable comb hives and the honey extractor, for this reason: The hives are all filled with honey (sealed) and no room to breed, or at least very little. Next season there will be late swarms and small ones, out of all the hives that are now the heaviest and the strongest, unless the honey is taken away this fall or next spring—that is, what they can spare. I find that colonies with plenty of bees in the spring, and but very little honey

will, with a little judicious feeding, yield the largest swarms and the most surplus honey. At least this is my experience.—P. LATTNER.

WEST SPRINGFIELD, Mass., Oct. 24.—When I put my bees on their stands last spring (end of March,) I found one stock had quite a supply of drones, and drone brood in all stages. The queen was a fertile one hatched late in the previous fall. There was plenty of worker brood also. They have done well through the season. This was to me entirely unprecedented at that early season.—I found a young queen, too, in a rather weak stock, that for some weeks during the spring deposited eggs by the quantity in the cells—from fifteen to twenty in a cell. After strengthening them by inserting two frames of maturing brood from a strong colony, she ceased laying more than one egg in a cell.

A large proportion of the bees in this section were "*winter killed.*" Mine came from the winter repository in good condition, and during the period of fruit blossoming stored more honey than I ever knew them to do before. Some colonies were seriously injured by their great accumulation of stores. A free use of the "honey slinger" would have prevented this. White clover was very scarce, the season having been unusually dry, so that the supply of surplus honey is small. But the stocks are all heavy this fall, from the buckwheat and wild fall flowers.

A month seems a very long time to wait for a visit from *so welcome a friend as the Journal*, and I unite my earnest wish, to the many already expressed, that it may soon be permitted to visit us fortnightly.

With hearty wishes for the complete success of the Journal, yours, &c., N. T. SMITH.

CHARITON, IOWA, Nov. 4.—My bees have not done any good this season. I shall have to feed my black bees through the winter. My Italians have done better. On account of the late freezing in the spring, followed by drouth until July, pasturage was scarce. Then during August, September, and the first part of October, we had an unusual amount of rain. Taking the season through, it has been very unfavorable. Out of twenty stocks only one showed any disposition to swarm. There are no Italian bees in our county, except my own. I did not get mine until last May, and have not had a good time to test their merits; but with what little experience I have had with them, I think they are far superior to our common bees.

I would by no means miss the monthly visits of the Bee-Journal.—J. A. BROWN.

EAST HARDWICK, VT., Nov. 7.—The present season has been very good for surplus honey, with us. We have taken two thousand and fifty (2050) pounds from fifty-five stocks; and an artificial increase of ten swarms, all in good condition for wintering. —J. D. GOODRICH.

ARGENTINE, MICH., Nov. 7.—Here are two dollars for the Bee Journal. I would not do without it for twice two dollars; and speak a good word for it every chance I get.—Bees have not done well here, in storing surplus honey. They have stored a little cap honey, and gathered enough to carry them through the winter.

I have kept bees about eighteen years, and have had the bee fever rage quite high by spells. But the loss by millers, hard winters, and poor honey seasons, allayed the fever only to return again with the first good honey season; and now I think it has become permanently located with me.—

LAKE, STARK CO., OHIO, Nov. 9.—Bee-keepers in this section of country are generally many years behind the times. A considerable number of persons, however, keep a few stocks of bees; some few still adhere to the box hive and sulphur pit. A few are using the Langstroth hive and like it. These let their bees swarm and give them some attention. The majority have been using the Flanders' triangular hive; but this hive is in bad repute, and nearly all who still have it are about ready to do as I have done—quit using it. Mr. Gallup's hives are liked by all who have seen me operating them, and a few of my neighbors have begun to use them. Italian bees have been introduced here only to a small extent; but all who have them speak well of them. I consider them very much superior to the blacks. My pure stocks are so peaceable, that I can usually handle them during the honey season without smoking or coaxing. But my hybrids are decidedly cross, and sometimes difficult to control. The past season was rather rainy here on account of which the apple blossoms were almost entirely lost to the bees. White clover yielded abundantly from the 1st to the 22d of June, inclusive. Fully one half of this time was also lost by rainy weather. But notwithstanding all this, the bees made a fair amount of surplus honey, and with few exceptions, stock have sufficient to winter over without feeding.—H. CRIST.

BORODINO, N. Y., Nov. 12.—The season of 1870, has been very good for bees in this section. Although we have suffered from the drouth, there has been scarcely a day till October, but what bees could gather honey. My bees gathered on an average sixteen pounds per stock from apple blossoms. The Italians are far ahead of the blacks, not only in honey gathering, but in disposition and beauty. It is not necessary to use any smoke, when operating with them. I have one swarm that gave me one hundred and twenty-five (125) pounds of box honey, and a very large swarm besides.—Every bee-keeper should take the American Bee Journal. No person can be a constant reader of the Journal, and not be amply paid in keeping bees.—G. M. DOOLITTLE.

STRINGVILLE, OHIO, Nov. 12.—I enclose two dollars for the Journal, thinking it will be money well spent. I have thirty stands of bees, and am now building me a house to winter them in. I shall build it on the plan that Novice built his.—I have not been so fortunate as some, this season, but have been getting more Italian queens and hope to do more another season. I have tried Alsike clover, and think it will pay to raise it both for bees and for fodder. I wish you success in your enterprise.—H. L. AVERY.

[For the American Bee Journal.]

Running Comments.

In perusing the November number of the Journal, I find some very good ideas advocated, and some that do not lay quite "chunk," as friend Moon would say. The first article, on foulbrood, I know nothing about, having never seen anything of the kind in these parts. Next article, by J. Stahali, is good. The next is by L. C. Whiting, on purity of Italian bees. I see he is getting on the right track, in regard to breeding pure bees. I was also glad that James Haddon received a good Italian queen of Mr. Alley. Next, Novice pitches into the Rural New Yorker, for not telling when to remove bees, but leaves us in the dark as much as the Rural. What say you, friend Novice? I should think it better to move bees in the night than in the day time, when one half of them are out of the hive, as was the case with the beeman referred to. Bees may

be moved at any time when they are all in the hive, either at night or in the day time. It is difficult to move bees at any time, without loss, unless they are moved from three to four miles. New swarms should be moved immediately on hiving, to their permanent stand. It is well to move while some are on the wing, as they will follow suit and attract one another to the hive. If any should get bewildered, they will return to the parent hive. If left where hived until dark and then moved, as the general practice is, large numbers flying out next day will repair to where they were hived, and from there to the old stand; and such are generally destroyed by the bees. Yes, friend Novice, that is right! Pitch into the hen-roost moth-trappers, and those that kill bees in June, or in any other month in the year, for their honey. Yes, clean them out, *Root* and branch! And I will tell you how to manage those queen cells. Remove the queen two days before inserting the cells; then place the cell in the comb surrounded by unhatched brood, and place it near the centre of the brood chamber. I do this for two reasons; First, the bees will not be so liable to destroy the cell; second, the queen cell may be kept in a uniform temperature, that the queen may become rightly and fully developed. Cells placed upon the top of frames, or outside of the clustering bees, are more apt to be destroyed by the bees, or to get partially chilled and thus not mature perfectly. Next, we come to Price's Natural Prolific and Hardy Queens. But as I have an "axe to grind" in this queen business, I will just simply say, that all queens I have seen are natural ones, and I claim that bees do not know how to make *artificial* queens. Next, G. M. Doolittle has smoked his bees to death with tobacco. I hope he has learned a lesson, and that no one else will allow his bees to be smoked with tobacco. It makes them cross and irritable for weeks after. Next comes Ignoramus and the looking-glass. It seems this, like a sun dial, would not work on a cloudy day; but as he says he writes for the Bee Journal for a purpose different from the object of a teacher, we will let him pass, hoping to hear from him again. Next Pösel says that if a colony of bees has suffered from hunger for twenty-four hours the fertility of the queen is impaired. Pösel is correct. All queens chilled till they are dormant are worthless. Although most of them will afterwards, when revived, lay a few eggs, they will soon be superseded. My friend, Thaddeus Smith, of Pelee Island, I see is pretty well satisfied as to bee-hives. Then comes the Thomas hive, by George Cork; Shallow or Deep Hives, by Calvin Rogers; Wintering Bees, by R. Bickford—all of which I let pass, as "doctors disagree." Gallup on Ventilation. Yes, that three-inch hole is all right, so there was no other hole. But how would it have been, had there been a hole at the bottom of the gum, with this one at the top? My doctrine is, give bees plenty of ventilation; but only at one place, so as to avoid a current of air. Levi Fish thinks Alley's improved hive is just the thing, and thinks we had better all try it. Next in notice comes J. M. Price's rag-smudge. I differ with him in regard to smoke. Don't smoke your bees with rags or tobacco. Rotten wood answers every purpose, much better. Of course, Gallup will help H. Nesbit out of his mishaps with the queen nursery and fertilizing cage. I can do nothing for him, being a disbeliever in such fixings. My plan is to keep two or three queenless colonies, giving them brood from time to time, from my breeding queens, so as to have queen cells of suitable age to transfer whenever needed. These cells I use for rearing queens and making artificial swarms, giving a queenless part a cell. It is much cheaper than to furnish them with fertile queens, and altogether better than to let them rear queens from the egg.

One word more, and I am done. In regard to our National Bee-keepers' Convention, to be held at Indianapolis on the 21st and 22d of December, I hope all who can will attend, and bring with them their improvements, hives, honey extractors, and in brief everything that will be essential in practical bee-culture. We expect to see men there, too, whose judgment will do to rely upon. So bring along all the fixtures, and let us see who has the best. In regard to the controversy about the National Convention, I for one am free to say that I believe the Michigan Convention acted fairly and honorably, giving *all* a cordial invitation to attend their Convention, and have a voice in determining where the National Convention should be held. If we failed to attend their meeting, I think we should hold our peace; and we hope that friend King and others, if others there be that do oppose, will yet see proper to act in good faith with the Michigan Convention.

A. BENEDICT.

Binnington, Ohio.

[For the American Bee Journal.]

The Looking-Glass—Concluded.

MR. EDITOR:—I see on pages 102 and 103 of the current volume of the Journal, that Mr. Doolittle and Mr. Ignoramus bring conclusive *proof* against my theory in regard to the looking-glass stopping decamping bees; so I will have to give in, but have the satisfaction of having caused the proof to be produced, which will undoubtedly convince many others who thought as I did.

I have seen so many erroneous articles in print, that I am inclined to look upon many things I see written about bees with some doubt, until they are fairly proven to be true, by such evidence as Mr. Ignoramus and Mr. Doolittle have adduced, sufficient to convince the most skeptical. Now, Mr. Ignoramus, I think as you say in the Bee Journal, that we should all put our shoulders to the wheel and help on the cause of bee-keeping. And in order that I may add further testimony to your side of the looking-glass, I will, if health permit, next season, allow some half dozen swarms to start off for the woods, fly half a mile, stop them with the glass, and report to the American Bee Journal.

A. NESBIT.

Cynthiana, Ky., Nov. 12, 1870.

Moving Bees.

It will answer to move bees at this or any other season of the year, and to any distance. They will work just as well in the new location, as in the old one, in case the honey crop be as good. We think bees will work better by being moved from one locality to another. The disturbing of them thus has a fine effect upon them. If you wish to be convinced, just try it.

The Messrs. Marvin of this place have just moved sixty colonies of bees one hundred miles away. They have taken them off to pasture. During the next four weeks they expect to get nearly a ton of liquid honey from them. It is, however, an experiment, and may not be a profitable one. As I was called upon to help them get the bees ready to move; I will state how they were prepared.

In the first place the hives were opened and —about four frames of honey taken from each— two from each side. These combs were uncapped and the honey thrown out by the centrifugal machine, and returned to the hives, then a small finishing nail, ¾ inch, was driven into the ends of the frames to keep them in place. The passages in the honey-board were left open, and two to four holes made in the top for ventilation. These were covered with wire cloth to confine the bees. The covers were nailed fast to the main part of the hive by two strips of tin, one on each side, say one inch wide and four inches long. Towards night, when the bees were all at home, the portico fronts were covered with wire cloth, also, to confine the bees and for ventilation. Each piece of wire cloth was about ten inches wide and sixteen inches long, and so fine that no bees could get through it. No. 10, is about right. Small carpet tacks were used to fasten the gauze to the the front. When all the hives were thus prepared, they were put upon spring wagons and taken to the cars. These bees were in the Langstroth hives. Frame hives should be kept *upright* while *in transitu*; but box hives should be *inverted*. The latters hould have wire cloth tacked over the bottom.—*M. M. Baldridge, in Prairie Farmer.*

The Australian Bee-Hunter.

Insect food is much esteemed by the Australians, especially honey. In the procuring of the latter they show great agility and no little ingenuity; but it will be seen that the intellectual skill of the American bee-hunter has a great advantage over these untutored savages. When a native sees a bee about the flowers and wishes to find the honey, he repairs to the nearest pool, and, having filled his mouth with water, stretches himself on the bank of the pool, and patiently awaits the arrival of the bee. After awhile one is sure to come and drink, and the hunter, watching his opportunity, blows the water from his mouth over it, stunning it for a moment. Before it can recover itself, he seizes it, and by means of a little gum attaches to its body a tuft of white down obtained from one of the trees. As soon as it is released, the insect, of course, makes for its nest, but its flight is somewhat retarded by the down. Now ensues a race. Away goes the hunter after the bee at his fullest speed. Whatever obstacle he meets with on his course he leaps over or plunges through, if possible, making light of the severe bruises from falls sustained in his headlong career. Having thus tracked the bee to its nest, the Australian loses no time in ascending to the spot, if in a tree, taking with him a hatchet, a basket and some dry leaves of grass. He lights the leaves, and under cover of the smoke, chops away the wood until the combs are exposed, then putting these in his basket, he descends and departs with his booty. Should the nest be a very large one, he is supplied by his friend, whom he acquaints with his discovery, with baskets or other vessels for it transportation from the tree to his hut.—*Phrenological Journal.*

Bees do not seem to very early risers, the influence of the sun being their great prompter, and until that grows with the progress of the morning, they are not numerously abroad. Early sometimes in the afternoon some species wend homewards, but during the greatest heat of the day, they are most actively on the alert. The numbers of individuals that are on the wing at the same time must be astounding, for the inhabitants of a single colony, when they may perhaps be called semi-gregarious, from nidificating collectively within a circumscribed space, can be computed by myriads. And then the multitude of such colonies within even a limited area! When we add to this the many species with the same productiveness! Yet who, in walking abroad, sees them but the experienced entomologist? When we consider the important functions they exercise in the economy of nature, and that but for them, in the majority of instances, flowers would expand their beautiful blossoms in abortive sterility; we can but wonder at the wise and exuberant provision which forecasts the necessity and provides accordingly. But that even these should not superabound, there is a counterbalance in the numerous enemies to which they are exposed.—*Schuckard.*

Honey Packing for Market.

Editors Live Stock Journal:—An article in your first issue, appears better calculated to favor the purchasers of broken lots of honey than the shipper. Although we have known honey, packed in larger packages than recommended by the writer to reach the commission house in good order, there is far more risk than in small packages. There is also a convenience in the smaller, as the retail grocer frequently wants to purchase only fifty or a hundred pounds at once. In this case there is no necessity for breaking packages to furnish the required quantity. Packages for honey should be made of half inch lumber, the ends of five-eighths, as they need to be solid; the sides nailed up with lath like a peach box; one or two short strips of lath should be placed on the edges of the bottom, (which latter should project beyond the ends the thickness of a lath,) crossing the lath at right angles, with a small clinch nail, put thro' at these places.

The object of these short strips, is to connect the bottom and top at the sides of the box, so that they shall not spring off. The clinch-nail through the strip and laths makes all firm.

The box should be three-quarters of an inch deeper inside than the boxes of honey, and

should hold about fifty pounds. Hay, straw, or shavings, should be put in the bottom, so that when the boxes of honey are put in, it will require a little pressure to bring the top down to its place.

The glass sides of the boxes should be next to the lath, so as to show the contents, and induce careful handling.

After nailing on the top, which should project the same as the bottom, so as to be even with the lath, the upright strips (two for each side,) are nailed to the edges, and the package is finished. The net weight of the contents, should be plainly marked on the end.

Honey in good condition, put up in this manner, will stand considerable rough handling, as the hay, straw, or shavings in the bottom breaks the shock.

While honey sells readily at the highest prices in our Western cities early in the season, in the New York market it is dull sale at low prices. With October the market fairly opens and prices advance. The last week of September two lots of honey—one of 10,000 lbs., the other of 15,000 lbs., arrived in New York by canal, the owner accompanying them.—*L. C. F. National Live Stock Journal.*

Honey Dew.

Honey dew has been abundant most of the time for six weeks or more, and to this source bees are indebted for most of their supplies. By the way, this season's observation does not confirm the theory advanced by most writers who attempt to explain the origin of honey-dew, by giving it as the work of the aphis or bark louse. What it is, or how originated, I am not prepared to say; but were I writing a work on bee-keeping, should certainly not give it in the chapter on "Honey Dew," as a fixed fact that the "peculiar substance is secreted and deposited by the aphis." At least, close investigations in a season of the most abundant supply of the deposit, have given but little to confirm this the generally accepted solution of the subject. Be it what it may, it is appreciated by the bees and yields a very pleasant flavored honey.—F. BREWER, in St. Louis, *Journal of Agriculture.*

Alsike Clover.

R. R. Blackstone, of Aroostock county, Maine, writing to the *American Agriculturist*, gives the following as his experience with Alsike clover: "It has been described as a giant white clover, which is hardly correct, as it has many of the characteristics of red clover, which it resembles in its manner of growth. Its stalks are much finer than those of red clover, though growing to about the same height. From a four years' experience with it, I think it will produce as many tons of hay to the acre, as either the white or the red variety; that the hay made from it is equal to the best white clover hay; that it affords an excellent feed for bees; and that it winters well. I have not tried it for pasturage, but see no reason why it would not succeed well for that purpose. My soil is thoroughly underdrained by nature, like all Aroostock land, and is therefore well suited to either grain or grass."

A essey onto the bee.

BY P. BENSON, SR;

whitch the Sr. stans for singger.

The bee is a very smoll animile, but it kan git over a verry hi fens. It belongs to the burd tribe, havin wings but no fethers, and is a verry good singger. It lives on hunny and beeswax and ripe froot of different kines. When it eets grapes it olwaze spits out the seeds and skins, or else leeves them hangin on the tree. It gits its hunny out of flours when thay 1st open, as Shaskpeer butifully expresses it,

> "How doth the bizzy little be
> Improve eech shinnin our
> & gether hunny oll the day
> Frum every *openin* flour."

When a be goze up to enny 1 & kommences to sing, the person to which the be goze up to them, generly makes his hands and arms go verryfast and runs away and then the be gits mad bekoz thay wont lissen to his song and stings them.

That's 1 advantage of a tode. He is a verry unpretty animile but he never stings, leastways not unlest you should aggeryvait him verry mutch, and then he mite, but I never hear tell that he did.

The be is a aristokratick form of guverment and has a king be, and elecks a new 1 everry yeer or so.

The be and the misketo air boath good singgers and good stinggers.

The misketo keeps his stings in frunt of him whair he can see what he is doin, but the be keeps his sting behind whair he kant see what he is about, and is just as like as not to sting sumwhair whair it will hurt.

The be never suckels his young, and in this respeck is simmillar to a snappin turtle.

They ken be trained to stay at home every nite, but for trainin to follough his master around a dog is much supearor, for a be will follough enny 1 else just as quick as his master if thay cum around his hive. The be olwaze lives in a behive and sumtimes in a old hollough log.

They never swarm in winter, but in summer when its a warm day, and generly thay watch their chance to swarm when fokes ar off to church or sumwhairs els.

If thay swarm when the fokes is to home thay all start out with the dinnerhorn, 2 tin pans, the lookin glas, drippin pan, et settery, &c., & maik sitch a outragus nois that the swarm kant hear whitch wa to go & settles on the 1st appel tree that cumes in thair wa, and then the fokes shakes them down at a hive with a sheet under it, and tha ameegitly go in and kommens hous keepin.

When I teech singin skewl I olwaze like to stop over nite whair thay keep bese bekoz hunny agrees with my vois.

Besides the hunny be thair is the parin be, quiltin be, and varis uthers too teejus to renumerate.

The sting of a bee is a barbed spear, projected by the insect in defence from real or supposed danger.